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ABSTRACT

A bibliography pertaining to the environment, environmental education, and environmental education programs and materials is presented in this compilation. Citations were obtained from Research in Education (RIE), "inhouse" files on environmental education from Project RISE (Research and Information Services for Education), and various bibliographies. Content of the bibliography is organized in accordance with the parameters of the project. These include: time span (RIE citations from January, 1967 to March, 1971); grade level (kindergarten through twelfth grade); emphasis (ecology, pollution, and environmental education); sub-areas (curriculum, curriculum units, and experiments); evaluative instruments; books and materials about the environment, including films, filmstrips, transparencies, kits and charts; programs and projects involved in environmental education; and agencies and organizations. A bibliography of the sources used by Project RISE to assemble this document is also provided. (BL)

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# ENVIRONMENTAL EDUCATION

**A BIBLIOGRAPHY PERTAINING TO THE ENVIRONMENT,  
ENVIRONMENTAL EDUCATION, AND ENVIRONMENTAL  
EDUCATION PROGRAMS AND MATERIALS.**

**COMPILED BY: THOMAS F. PEPE**

**RESEARCH AND INFORMATION SERVICES  
FOR EDUCATION**

**117 W. RIDGE PIKE  
CONSHOHOCKEN, PENNSYLVANIA 19428**

**JULY 1, 1971**

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### MANKIND'S INALIENABLE RIGHTS

1. The right to eat well.
2. The right to drink pure water.
3. The right to breathe clean air.
4. The right to decent, uncrowded shelter.
5. The right to enjoy natural beauty.
6. The right to avoid regimentation.
7. The right to avoid pesticide poisoning.
8. The right to freedom from thermonuclear war.
9. The right to limit families.
10. The right to educate our children.
11. The right to have grandchildren.

—Paul R. Ehrlich

## INTRODUCTION

With the advent of environmental concern has come the need for a survey of the available, published information on environmental education. Much of the earlier emphasis in environmental education has been on the development of nature awareness and conservation. Recently, however, the threat of environmental catastrophies has shifted the direction of the educational forces to the study of the environment and of the multi-disciplinary factors that affect it.

This bibliography was compiled at the request of Mr. Edward Garlitz – Science Curriculum Coordinator for Bucks County Schools, Doylestown, Pennsylvania. Following the initial guidelines of Mr. Garlitz's search request, we obtained citations from Research in Education (ERIC), our "inhouse" files on environmental education, and various bibliographies. The periodical literature indexes such as Current Index to Journals in Education (CIJE) and Education Index were not searched because of time constraints and their relative inappropriateness given the parameters of the initial search request. The parameters involved were time span—search ERIC from January, 1967 to March, 1971; grade level—Kindergarten through twelfth grade; emphasis—ecology and environmental education; sub-areas—curriculums, curriculum units, and experiments; evaluative instruments; books and materials about the environment; programs and projects involved in environmental education; agencies and organizations.

With the current emphasis on environmental education, many agencies, both educational and non-educational, have produced materials and documents on this subject. This bibliography represents an attempt to compile some of those documents. Inclusion here-in does not represent endorsement of cited documents by R.I.S.E. in that not all were available for our review.

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AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION AND RECREATION

1963 Education in and for the Outdoors. Report of the National Conference on Outdoor Education. Washington, D.C.: American Association for Health, Physical Education and Recreation. 97 p. (ED 023 516).

ASSOCIATION OF CLASSROOM TEACHERS AND PROJECT MAN'S ENVIRONMENT

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Available from National Education Association; 1201 16th St., N.W. Washington, D.C. 20036.

CONSERVATION AND ENVIRONMENTAL SCIENCE CENTER

C.1970 The World Around Them. (Urban Environmental Education Component in Print) The Center; Brown Mills, N.J.

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THE CURRICULUM DEVELOPMENT COUNCIL FOR SOUTHERN NEW JERSEY

Focus on Environmental Education. Glassboro State College; Glassboro, N.J.

EZERSKY, EUGENE M.

1969 City to Country. Outdoor Education for New York City. Educational Facilities Labs., Inc.; New York, N.Y. 71 p. (ED 035 233).

THE NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

1970 A Report to the Public. The Council; Mountain Lakes, N.J. 07046.

Report on their environmental education program.

THE NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

Master Plan for Environment Education. The Council; Mountain Lakes, N.J.

Broad plan for environmental education. Available from 355 Route 46, Mountain Lakes, N.J. 07046.

THE NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

1970 Master plan for environmental education: A proposal for New Jersey. The Council; Mountain Lakes, N.J. 27 p.

STEGNER, ROBERT W.

1970 A Comprehensive Population Education Project. Delaware University; Newark, Del. 8 p. (ED 039 136).

Describes the development of a population studies program.

## Articles

ALLEN, JAMES E.

1970 Education for survival. American Education 6: 20-23 (March).

An article on the environmental situation which stresses the need for environment ecology education.

ANDERSON, JAY E. AND NORMAN JACOBSON

Environmental Learning: An Experimental Summer Program. Science Teacher. p. 37-39 (April).

BUNDY, McGEORGE

1970 Charting the complexities. Saturday Review. p. 56-57 (April 4).

CAULTON

1970 An Ecological Approach to Biology. Journal of the Biology Education 4: 1-10 (March).

Discusses the teaching of ecology in the high school.

COVERT, DOUGLAS

1969 Toward a Curriculum in Environmental Education. Environmental Education. (February 11-12).

DWYER, ROBERT L.

1970 School Camping Programs: Ecology in the Outdoor Classroom. Journal of the National Council for the Social Studies 35: p. 74-77 (January).

Article on ecology as it is related to outdoor education.

GRADE TEACHER

1969 Ecology: Why You Must Teach It. Grade Teacher 86: p. 93-95 (January).

GRADE TEACHER

1969 Ecology: Programs You Should Know About. Grade Teacher 86: p. 122-125 (January).

GRADE TEACHER

1969 Ecology: The Issues Behind the Science. Grade Teacher 86: p. 96-97 (January).

Important questions and answers for teachers who are about to teach environmental education.

GRATZ, PAULINE

1971 The Environment and The Teachers. Journal of the National Council for the Social Studies 35: p. 58-62, 73 (January).

• Environmental problems and the role of the teacher.

HARRISON, GORDON

1969 The Ecological View. *Environment Education* 1: p. 19-20 (February).

HILL, WILHELMINA

1970 Relating Geography to Environmental Education. *Journal of Geography*. p. 485-486 (November).

KREAMER, RALPH

1969 Environmental Education - A Formidable Challenge. *Pennsylvania Education*, Pennsylvania Department of Education; Harrisburg, Pa. p. 21-26 (November-December).

LEAR, JOHN

1971 Environment and the Quality of Life: The Responsibilities of Congress. *Saturday Review*. p. 49 (February).

LEVINSON, ELIOT AND SAUL YANOFSKY

1971 After the Water is Clean (or Not), Then What? How? and Why? *Journal of the National Council for the Social Studies* 35: p. 67-73 (January).

Action-oriented report on what a metropolitan area is doing to environmentally educate inner-city youth.

MARGOLIN, EDYTHER

1971 Ecology in the Primary Grades. *Journal of the National Council for the Social Studies* 35: p. 53-66 (January).

Based on the premise that the foundation for constructive environmental action is developed in early childhood, she relates to the question - "What should be done?"

NATIONAL PARKS AND CONSERVATION MAGAZINE

1970 National Park Service Education Programs 44: (July).

Review of their efforts to establish a curriculum on environmental and ecological education.

NATIONS SCHOOLS

1970 What can Education Do About Environment? *Nation's Schools*. p. 60-61 (April).

NATIONS SCHOOLS

1970 Environmental Education is All Things. *Nation's Schools*. p. 65-67 (April).

ODUM, EUGENE P.

1969 The Strategy of Ecosystem Development. *Science* 164: p. 262-269 (April).

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1969 What's New About Environmental Education? *Environmental Education*. p. 1-4 (February).

SLOBODKIN, LAWRENCE B.

1968 Aspects of the Future of Ecology. *Bioscience* p. 16-23 (January).

STAPP, WILLIAM

1969 The Concept of Environmental Education. Environmental Education. p. 30-31 (February).

STEIF, WILLIAM L. AND GEORGE ARNSTEIN

1970 Environmental Degradation and Education. Nation's Schools. p. 53-68 (April).

SWAN, JAMES

1969 The Challenge of Environmental Education. Phi Delta Kappan. p. 26-28 (September).

SWAN, MALCOLM D.

1969 Evaluation - A Point of View. Journal of Outdoor Education 3: p 13-15 (Winter).

WALSH, J.

1969 From Here to Ecology. Grade Teacher 86: 20+ (January).

Environmental Education Curriculum Guidelines,  
Project Guides, and Evaluational Instruments.

AMBRY, EDWARD J.

- 1968 Conference Working Paper. Evaluation for Environmental Education (A Systems Analysis Approach for Self-Evaluation). The New Jersey State Council for Environmental Education; Newark, N.J.

CHERRY, JIM ET AL.

- 1967 Fernbank Science Center Forest Teacher's Guide -- 1967. DeKalb County Board of Education; Decatur, Ga. 54 p. (ED 040 084).

The guide familiarizes teachers with the programs available through Fernbank Science Center.

CONSERVATION AND ENVIRONMENTAL SCIENCE CENTER FOR SOUTHERN NEW JERSEY

- 1968 Teacher's workshop handbook for resident programs. Center for Southern New Jersey; Brown Mills, N.J. 66 p. (ED 033 788).

Kinds of activities and programs used in a resident program for environmental education. Also guidelines.

DANIELS, ROBERT

- 1968 An Evaluation of the Mohican School in the Out-of-Doors. Mohican School in the Out-of-Doors; Perrysville, Ohio. 58 p. (ED 038 218).

Project evaluation data collected from participating pupils, parents of these students, students' homeroom teachers, camp visitors, camp personnel, and workshop participants were evaluated in terms of specific knowledge, utilization of the outdoors as a laboratory, awareness of man's dependence on nature, appreciation of nature's beauty, adaptability to community living, and understanding of national ecological problems.

DANIELS, ROBERT E. ET AL.

- 1965 The Report of the Curriculum Subcommittee of the committee for Outdoor Education, Richland County and Mansfield City Schools; Mansfield, Ohio.

Related to evaluation of curriculum.

DEPARTMENT OF OUTDOOR TEACHER EDUCATION

- 1965 Outdoor Education Handbook, Northern Illinois University; DeKalb, Ill. 64 p.

Handbook for outdoor education teacher training includes organization and planning, instructional program, and evaluation of pupils and activities.

Yanis, Martin

- C. 1970 Outline of Proposal, Formative, Summative, and Comparative Evaluation for Environmental Education. Unpublished (May be contacted at Pennsylvania Department of Education, Harrisburg, Pa.)

Related to evaluation of curriculum.

FERNBANK SCIENCE CENTER

1967 Pollution Single Visitation Programs for Grades 5, 6, and 7; DeKalb County, Ga.

The three programs are — Pollution in Georgia, Pollution in the United States, and World Pollution.

FERNBANK SCIENCE CENTER

1967 High School Biology Programs; DeKalb County, Ga.

Presents concepts for programs entitled Ecological Relationships, Plant and Animal Succession, Plant Groups, Common Seed Plants of Fernbank Forest, Marine Invertebrates, Ferns and Fern Allies, Bird Study, Snakes and Other Reptiles and the Electron Microscope and Techniques.

FERNBANK SCIENCE CENTER

1967 Fernbank Forest Teacher's Guide. DeKalb County Board of Education; DeKalb County, Ga.

Presents curriculum outlines for secondary schools (plant taxonomy, field ecology, winter plant taxonomy and climax forest succession) and for elementary schools (field ecology, plant taxonomy). In addition, a special introduction to ornithology and conservation.

GILFILLAN, WARREN C. AND ROBERT A. BURGESS, COMPILERS

1970 The Student's Guidebook for the Outdoor School. Multnomah Outdoor Education; Portland, Ore. 55 p. (ED 038 223).

Designed for a one week resident program. Major portion of manual covers equipment, activities undertaken, general rules and regulations.

GILFILLAN, WARREN C. AND ROBERT A. BURGESS, COMPILERS

1968 The Teacher's Handbook for the Outdoor School. Multnomah Outdoor Education; Portland, Ore. 42 p. (ED 038 224).

Intended for sixth grade classes, this manual describes outdoor school, staff responsibilities, and orientation to the outdoor school. Specific information includes follow-up activities and check list of equipment.

GRILLEY, HELEN ELAINE

1966 Development of an Instrument for Evaluating Resident Outdoor Education Laboratory School Programs (Research Study Number 1). Doctoral dissertation submitted to Colorado State College; Greeley, Colo. (ED 039 981)

Evaluation instrument for resident outdoor education laboratory school programs.

HORN, KENNETH W. ET AL.

1969 The Balarat Center for Environmental Studies. A Report to the Board. Denver Public Schools; Denver, Colo. 28 p. (ED 033 778)

Describes programs and activities under way, and lists recommendations for programs to be completed.

LEWIS, CHARLES

- 1969 Outdoor Education -- Integrated Outdoor Education into the Curriculum. Journal of Health, Physical Education, Recreation 40: p. 63-64 (June).

Guidelines for integrating outdoor education into the curriculum.

NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

- 1969 Evaluation for Environmental Education (A Systems Analysis Approach for Self-Evaluation) 1969. The Council; Mountain Lakes, N.J. 73 p. (ED 033 801).

An evaluative instrument for environmental education programs in New Jersey.

RESOURCE-USE OUTDOOR EDUCATION CENTER

- 1970 An ESEA Title III Project. The Center; Perry, Fla.

Evaluation method for the outdoor education center program on environmental studies

ROLLER, ELIZABETH AND RICHARD GREEN

- 1967 Outdoor Education Manual for the Natural-Resource Center. Davidson County Metropolitan Public Schools; Nashville, Tenn. 79 p. (ED 038 206).

The manual gives general information on the Center and also classroom objectives, follow-up activities and concepts to be developed. Oriented toward 6th grade classes.

ROTH, CHARLES E.

- 1968 Curriculum Overview for Developing Environmentally Literate Citizens. Conservation and Education Center, Liberty Council of Schools; Lincoln, Mass. 23 p. (ED 032 982).

Basic ideas and concepts relevant to the environment that can be incorporated in existing curriculums. Also ten processes for effectively teaching these concepts.

STUFFLEBEAM, DR. DANIEL L.

- 1968 Evaluation as Enlightenment for Decision-Making. Evaluation Center, The Ohio State University; Columbus, Ohio.

Related to evaluation of curriculums.

YEATER, LARRY W.

- 1970 The Field Experience. Carteret County Marine Science Project; Carteret County, N.C.

A teacher's guide to the rationale and techniques of field ecology (All grades).

Environmental Education Curriculums,  
Curriculum Units, And Experiments.

ALBUQUERQUE PUBLIC SCHOOLS

- 1968 Albuquerque Public Schools Teacher's Guide to Outdoor Education. Albuquerque Public Schools; Albuquerque, N. Mex. 25 p. (ED 027 983).

Preparation manual for field trips.

BRENNAN, MATTHEW J., ED.

- 1970 People and Their Environment: Teacher's Curriculum Guides to Conservation Education. J.G. Ferguson Publishing Co.; Chicago, Ill.

Includes guides on social studies, home economics, biology, life science, earth science, and physical science, (K-12).

BROWN, ROBERT E.

- 1969 Detection and Analysis of Air and Water Pollutants. American Biology Teacher 31: p. 301-303 (May).

BROWN, ROBERT E. AND G.W. MOUSER

- 1964 Techniques for Teaching Conservation Education. Michigan State University; East Lansing, Mich. (ED 015 869).

Methods and techniques including an approach to the study of ecology.

BURGDORF, LUCILLE P. AND IRENE E. HARNEY

- 1969 Air and Water Pollution: Ideas for Classroom Study. Instructor 79: p. 18-19 (August-September).

BUSCH, PHYLLIS S.

- 1969 Seven Steps on Current Environmental Problems. Ulster County Board of Cooperative Education Services; New Platz, N.Y. 17 p. (ED 036 450).

Suggestions for introducing elementary school students to population density, social pollution, visual pollution, air pollution, and water pollution.

CHAPMAN, FRANK L.

- 1969 Salt March, Sound and Sea Beach. Carteret County Marine Science Project; Carteret County, N.C.

"A seventh grade unit on population dynamics."

CHAPMAN, FRANK L.

- 1969 The Sea and Its Boundries. Carteret County Marine Science Project; Carteret County, N.C.

An eighth grade unit on coastal processes and oceanography.



CHAPMAN, FRANK L.

1970 How Sea Animals Live. Carteret County Marine Science Project; Carteret County, N.C.

"A fourth grade unit on individual adaptation to a marine environment."

CHAPMAN, FRANK L.

C.1970 Living Communities of the Seashore. Carteret County Marine Science Project; Carteret County, N.C.

A fifth grade unit on interrelationships of coastal plants and animals.

CHAPMAN, FRANK L.

1970 The Ocean and Modern Man. Carteret County Marine Science Project; Carteret County, N.C.

A sixth grade introduction to man's use of the coastal resources and his effect on the environment.

COLE, RICHARD C.

1967 Science Interpretive Program—Spermaceti Cove Interpretive Center. Middletown Township Board of Education; Highlands, N.J. 11 p. (ED 020 898).

Curriculum development in geology and ecology.

EVANS, THOMAS

1969 Water Sampling Apparatus and Determination of Dissolved Oxygen in Water. The Science Teacher 36: p. 6–16 (March).

FERNBANK SCIENCE CENTER

1967 Special Request Programs in the Biological Science for Elementary Students. The Center; DeKalb County, Ga.

Presents concepts and follow-up activities for ten programs.

GILFILLAN, WARREN C. AND ROBERT A. BURGESS

1966 The Field Study Notebook for the Outdoor School. Regional Outdoor Education; Portland Ore. 62 p. (ED 018 376).

Notebook for studying ecology at an outdoor school. Available from 1441 S.E. 132 Ave., Portland, Oregon.

GRADE TEACHER

1969 Ecology: Four Concepts You Must Get Across. Grade Teacher 86: p. 110–116 (January).

**GRADE TEACHER**

1969 Ecology: How It Can Be Taught. *Grade Teacher* 86: p. 100–109 (January).

**GRADE TEACHER**

1969 Ecology: Lessons to Make It Come Alive. *Grade Teacher* 86: p. 117–131 (January).

Guidelines for orienting students toward ecology.

**HERSEY, JOHN T. ET AL.**

1970 A Curriculum Activities Guide to Water Pollution and Environmental Studies. Tilton School Water Pollution Program. Tilton, N.H. 520 p.

Guide involves students and teachers in action-oriented activities in the laboratory, in a watershed area, or in both.

**INSTRUCTOR**

1967 Air and Water Pollution: Ideas for Classroom Study. *The Instructor* 77: p. 1–7 (August-September).

Method for drawing students' attention to the environment and environmental problems.

**JAMES, RICHARD L. ET AL.**

1970 What Do You Know About Our Environment? *Pennsylvania School Journal* 118: p. 1–6 (May).

A quiz designed to illustrate important concepts in environmental science.

**KIESLER, H.**

1969 Children Can Test For Water Pollution. *The Instructor* 78: p. 92–93 (May).

The author presents tests to be performed by children.

**LINSKY, RONALD B. AND RONALD L. SCHNITGER**

1969 Marine Science Student Syllabus, Third Edition. Orange County Board of Education; Santa Ana, Calif. 91 p. (ED 039 146).

Manual developed for experience-centered program in oceanology.

**MAYER, WILLIAM V.**

1970 [A biology unit to stimulate the non-college bound student's interest in environmental studies]. University of Colorado; Denver, Colo.

**MICHIGAN STATE DEPARTMENT OF NATURAL RESOURCES**

Environmental Education for Intermediate Grades: A Teacher's Manual. The Department; Lansing, Mich. 27 p. (ED 036 448)

Teaching suggestions on the topics of geology, soil conservation and land use, trees, woodlots and forest, and wild-life and fishes.

#### MICHIGAN STATE DEPARTMENT OF NATURAL RESOURCES

Environmental Education for Junior High Grades: A Teacher's Manual. The Department; Lansing, Mich. 37 p. (ED 036 447).

Teaching suggestions for junior high level. Topics included are geology, water resources, soil and land use, trees, woodlots and forest, and wild-life and fishes.

#### MILLIKEN, MARGERET ET AL.

1968 Field Study Manual for Outdoor Learning. Burgess Publishing Co; Minneapolis, Minn. 127 p. (ED 037 295).

Ecology manual for advanced level. Areas covered are mapping the field of study, field study information, a study of soil, a study of water, a study of animals, and a study of weather.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

1970 (Environmental Education Units.) Minneapolis Independent School District 275; Minneapolis, Minn. 50 p. (ED 043 510).

Methods of teaching young elementary school students the principles of sampling populations. Also, for grades 4-6 that have knowledge of sampling, an explanation of biological diversity.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

1970 (Environmental Education Units.) Minneapolis Independent School District 275; Minneapolis, Minn. 95 p. (ED 043 511).

Use of games to introduce elementary school children to some concepts about environmental factors.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

1970 (Environmental Education Units.) Photography for Kids. Vacant Lot Studies. Control Mapping. Minneapolis Independent School District 275; Minneapolis, Minn. 86 p. (ED 042 636).

Technique for use with elementary students when studying field environment. Presented are techniques for photography, for measuring microclimatic factors, and for mapping.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

1970 (Environmental Education Units.) Soil Sampling. Stream Profiles. Tree Watching. Plant Puzzles. Minneapolis Independent School District 275; Minneapolis, Minn. 90 p. (ED 042 638).

For elementary school students. Techniques for measuring pH, water holding capacity, and nitrogen holding capacity of soil; methods for mapping and calculating water-shed run off; detailed study of a tree; study of many plants of the same species to show individual variations.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

1970 (Environmental Education Units.) Succession in a Micro-Aquarium. Minnows and Models. Brine Shrimp. Minneapolis Independent School District 275; Minneapolis, Minn. 87 p. (ED 042 637).

For elementary school students. Brine shrimp are used to give experience with life cycles and relationships between organisms and environmental factors. Minnows are used to develop a mathematical model (relationship between temperature and activity). Pond water (micro-aquarium) is used to make children aware of the concept of change in natural communities.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

- 1970 Habitat Study. Transect Study. (Environmental Education Units.). Minneapolis Independent School District 275; Minneapolis, Minn. 94 p. (ED 042 635).

Teaching activities for introducing elementary school students to some characteristics of organisms and their environment and to means of sampling a habitat (transect technique) and analyzing the data.

#### MINNEAPOLIS INDEPENDENT SCHOOL DISTRICT 275

- 1970 Plants in the Classroom. (Environmental Education Units.). Minneapolis Independent School District 275; Minneapolis, Minn. 66 p. (ED 042 634).

Techniques for use in an elementary school classroom in investigation of plant growth (emphasizing interrelationship between plant and environment), a description of a "nature hunt" for kindergarten pupils (interdisciplinary approach), a method for incorporating nature in art, and classroom activities on recycling are given.

#### MOHICAN SCHOOL IN THE OUT-OF-DOORS

- 1969 The Pioneer Student Textbook for the Mohican School in the Out-of-Doors. A Teacher-Guided Study in Your Outdoor Laboratory. The School; Perrysville, Ohio 58 p. (ED 038 216).

Intended for pre-camp preparation and in-camp study. Text includes sections on history, creative expression, botany, birds, soil, and weather.

#### NEEDHAM, DOROTHY

- 1970 Pollution—A Teaching. Grade Teacher 88: 36 p (October).

Contains three activity units (Air, Water, and Earth) for middle and upper grades.

#### NEWMAN, FRANK

Lab Bench/A Water Pollution Study. Burlington Township High School; Burlington, N.J.

#### NORTH JERSEY CONSERVATION FOUNDATION

- C.1970 Environmental Control + Social Studies + Science. The Foundation; Morristown, N.J.

A curriculum guide for Grades 1–3.

#### O'HARA, J.

- 1968 Laboratory Demonstration of Oxygen Depletion in Polluted Waters. American Biology Teacher 30: p. 572–574. (September).

**OREGON STATE DEPARTMENT OF EDUCATION**

- 1968 Outdoor Education in Oregon Schools. Oregon State Department of Education; Salem, Ore. 126 p. (ED 040 079).

Handbook is designed to aid teachers in setting up programs in outdoor education. Offers many suggestions for student activities.

**RAIMIST, ROGER J.**

- 1967 Laboratory Experiences in Marine Biology, Student Edition. Conservation and Environmental Science Center for Southern New Jersey; Brown Mills, N.J. 17 p. (ED 039 145).

Instructions for laboratory exercises using marine organisms. These exercises also deal with ecology.

**REUSCH, EILMA**

- 1969 Experiments with Sea Water. Carteret County Marine Science Project; Carteret County, N.C.

Four chemistry experiments suitable for eleventh and twelfth grade chemistry students.

**RIENOW, ROBERT**

- 1969 Man Against His Environment. (A Television Series.). State University of New York, Center for Educational Communications; Albany, N.Y. 124 p.

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1965 A Leader's Guide to Nature — Oriented Activities. The Iowa State University Press; Ames, Iowa. 210 p.

Similar to the Boy Scout Handbook, but related to outdoor education.

## Films

### ADVENTURES IN NATURE

Nine Filmstrips – Grades 2–4. An Introduction to Ecology. Available from Jam Handy School Service, 2781 E. Grand Blvd., Detroit, Mich. 48211.

### AIR POLLUTION

15 min. color film that illustrates the problems posed by air pollution and the steps being taken to correct them (\$8.00).

Available from Encyclopedia Britannica Educational Corporation, 425 N. Michigan Ave., Chicago, Ill. 60611

### AIR POLLUTION: TAKE A DEEP DEADLY BREATH

16 mm 54 min. color film (\$35.00).

Available from McGraw-Hill, ABC Documentary, Film Rental Office, 330 W. 42nd St., New York, N.Y. 10036

### ANIMALS AND THEIR HOMES

16 mm 10 min. film (K–4). Presents various types of animal homes – their location, the building material used, and protection it provides in a specific environment. No. F-8.

Available from Resource – Use Outdoor Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

### BEARGRASS CREEK

19 min. color film portraying the tragedy of a small tributary from its promising start to its end due to pollution (\$15.00).

Available from Stuart Finley Productions, 3428 Mansfield Rd., Falls Church, Va. 22041

### BY LAND, SEA AND AIR

31 min. color film about the effects of pesticides on farm workers and environment of California (\$5.00/day).

Available from Citizen's Legislative Department, Oil, Chemical & Atomic Workers International Union, 1125 16th St., N.W., Washington, D.C. 20036

### THE CHANGING BALANCE OF NATURE

16 mm 10 min. film (Jr. high - high school). Utilizing several plants and animals as examples, the constantly changing factors that affect the survival of an organism are illustrated. No. F-5.

Available from Resource - Use Outdoor Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

#### CLEAN WATER

20 min. color film that illustrates the dangers of water pollution and the correct sewage treatment (\$9.00). Order No. 3972.

Available from Extension Media, University of California, Berkeley, Calif. 94720

#### CRISIS ON KANAWHA

20 min. color film that illustrates the sources of industrial water pollution and methods of eliminating it (\$15.00).

Available from Stuart Finley Productions, 3428 Mansfield Rd., Falls Church, Va. 22041

#### ESTUARINE HERITAGE

16 mm sound and color film describing the importance of estuaries and the threatening factors of pollution, dredging, filling, etc.

Available from Bureau of Commercial Fisheries, Audio Visual Services, Room 601, 1815 North Fort Myer Drive, Arlington, Va. 22209

#### FIRST MILE UP

28 min. B/W film about the problems of air pollution and its effect on human health (\$8.00).

Available from Contemporary (Film Rental Offices, McGraw-Hill), 330 W. 42nd St., New York, N.Y. 10036

#### IF YOU LIVE IN A CITY, WHERE DO YOU LIVE?

Five 30 min. color and sound films produced to get children to explore and analyze their urban environment. An experimental curriculum unit for grades 4-6.

Available from National Instructional Television Center, Box A, Bloomington, Ind. 47401

#### IT'S YOUR DECISION: CLEAN WATER

16 mm color 14½ min. Film (League of Women Voters and The Soap and Detergent Association).

Available from Association Films, Inc., 600 Grand Ave., Ridgefield, N.J. 07657

#### JUST BEYOND THE CHALKBOARD

16 mm 20 min. color film that introduces teachers to the outdoor classroom. It illustrates how teachers (K-12) can effectively use the outdoor center. No. F-1. Produced by Northern Illinois University.

Available from Resource — Use Outdoor Education Center RFD NO. 1, Box 326, Perry, Fla. 32347

#### NOISE: NEW POLLUTANT

30 min. B/W Film (\$7.50).

Available from Extension Media Center, University of California, Berkeley, Calif. 94720

#### **NO ROOM FOR WILDERNESS? (POPULATION EXPLOSION)**

28 min. sound and full color Sierra Club film (\$5.00).

Available from Association Films, 600 Grand Ave., Ridgefield, N.J. 07657

#### **OUR CHANGING ENVIRONMENT**

17 min. color film that illustrates man's increasing ability to control his environment and the new pressures and problems this has caused for the modern city (\$8.00).

Available from Encyclopedia Britannica Educational Corporation, 425 N. Michigan Ave., Chicago, Ill. 60611

#### **PLANT-ANIMAL COMMUNITIES: ECOLOGICAL SUCCESSION**

16 mm 14 min. Film (grades 6-12) that illustrates the factors which influence ecological succession (the long term replacement of one organism for another). No. F-4.

Available from Resource - Use Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

#### **PLANT AND ANIMAL COMMUNITIES: INTERRELATIONSHIPS**

16 mm 14 min. Film (grades 6-12) that illustrates the interrelationship among plants and animals from a variety of habitats. No. F-3.

Available from Resource - Use Outdoor Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

#### **THE POISONED AIR**

60 min. B/W Film (CBS documentary).

Available from Carousel Films, Inc., 1501 Broadway, New York, N.Y. 10036

#### **POISONS, PESTS AND PEOPLE**

55 min. B/W Film illustrating the results of indiscriminate use of pesticides on wildlife and people (\$16.00)

Available from Contemporary (Film Rental Office McGraw-Hill), 330 W. 42nd St., New York, N.Y. 10036

#### **POPULATION ECOLOGY**

28 min. B/W film on the ecological consequences if the population growth is not brought under control.

Available from Contemporary (Film Rental Office, McGraw-Hill), 330 W. 42nd St., New York, N.Y. 10036

#### **THE PROBLEM WITH WATER IS PEOPLE**

30 min. B/W film which traces the route of the Colorado River and discusses its pollution (\$16.00).

Available from Contemporary (Film Rental Office, McGraw-Hill), 330 W. 42nd St., New York, N.Y. 10036

#### THE RIVER MUST LIVE

16 mm sound and color film which illustrates the effects of pollutants on a river and demonstrates the abatement of pollution.

Available from Shell Oil Company, Film Library, 450 North Meridian, Indianapolis, Ind. 46204

#### SONG OF THY WORKS

16 mm 10 min. film produced by John H. Storer portrays the magnificence of the natural world (K-12). No. F-2.

Available from Resource — Use Outdoor Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

#### THE THIRD POLLUTION

30 min. color film which describes America's four billion dollar solid waste problem and new techniques of solid waste management (Free).

Available from Environmental Control Administration, 12720 Twinbrook Parkway, Rockville, Maryland 20852, Attn: Tom Edgan

#### TROUBLED WATERS

16 mm sound and color film describing pollution in the United States.

Available from U.S. Senate Public Works Committee, Room 4204, New Senate Office Building, Washington, D.C. 20510

#### WATER POLLUTION

15 min. color film that presents the health problems posed by water pollution and steps taken to correct them (\$8.00).

Available from Encyclopedia Britannica Educational Corporation, 425 N. Michigan Ave., Chicago, Ill. 60611

#### WHY PLANTS GROW WHERE THEY DO

16 mm 10 min. Film (K-6). Presenting the reasons for the growth of specific plants in one type of area in various habitats—an open field, a woodland, a desert and a pond. These communities are then set up in a glass terrarium. No. F-9.

Available from Resource — Use Outdoor Education Center, RFD No. 1, Box 326, Perry, Fla. 32347

## Filmstrips and Transparencies

### AIR POLLUTION AND WATER POLLUTION

Overhead transparency sets 70016 and 70015 - includes two filmstrips and a group of transparencies with overlays which outline ways to cope with pollution problems. Junior-high and secondary schools.

Available from Scott Education Division, Box 391, Holyoke, Mass. 01040

### BIOLOGY - ECOLOGICAL ASPECTS

Overhead Transparency Program (Grade 6-12) that presents the basic principle of ecology. Includes energy source, inter-dependence, competition, predation, and ecological limitations. No. T-6.

Available from Resource - Use Outdoor Education Center, R.F.D. No. 1, Box 326, Perry, Fla. 32347

### BIRDS

Color Slide Program (K-8) National Audubon Society Series. Description and illustration of some common birds. Also presented are the various characteristics of the bird's nest building and habitats. No. 5-2.

Available from Resource - Use Outdoor Education Center, R.F.D. No. 1, Box 326, Perry, Fla. 32347

### ECOLOGICAL SYSTEMS

Four film strips with two records. Includes ecology of a seashore, forest pond, and desert.

Available from Imperial Film Co., 321 S. Florida Ave., Lakewood, Fla. 33803

### ECOLOGY

Color Slide Program (K-12) National Audubon Society Series. Overview of ecology - topics include the sun, farmland, water, earth, interrelationships of insects and flowers, and major biomes (life zones) found in America. No. 5-1.

Available from Resource - Use Outdoor Education Center, R.F.D. No. 1, Box 326, Perry, Fla. 32347

### ECOLOGY

Transparency duplicating book - includes twelve overhead projectuals, four duplicating masters, and a bound teacher's guide.

Available from Milliken Publishing Co., 611 Olive St., St. Louis, Mo. 63101

### ENVIRONMENTAL CRISIS: WHAT THE INDIVIDUAL CAN DO

17 min. color sound filmstrip (upper elementary grades to college) about solutions to the traffic, air, and non-degradable litter problem (\$15.00).

Available from NEA Publications, Sales Section, 1201 - 16th St., N.W., Washington, D.C. 20036

**ENVIRONMENTAL DECISION: AN INQUIRY**

1970 Five filmstrips intended to stimulate class discussion on alternative solutions to problems of environment concerning forests, air, wild life, soil, and water.

Available from B.F.A. Educational Media, 2211 Michigan Ave., Santa Monica, Calif. 90404

**THE ENVIRONMENT OF MAN - AN INTRODUCTION TO ECOLOGY**

Four filmstrips with four records for the middle and upper elementary grades. An introduction to ecology, eco-system, and natural and man-made change.

Available from Educational Coordinates, 432 S. Pastoria Ave., Sonnyvale, Calif. 94086

**ENVIRONMENT POLLUTION: OUR WORLD IN CRISIS**

Set of six filmstrips which presents the consequences of air, water, and land pollution.

Available from Wards Natural Science Foundation, P.O. Box 1712, Rochester, N.Y. 14603

**MAN AND HIS ENVIRONMENT: A NEW APPROACH TO ENVIRONMENTAL EDUCATION**

A 14 min. color sound filmstrip developed from the booklet, plus the booklet, a script, and guide for using the film strip (\$17.00). Stock No. 388-11900.

Available from National Education Association, 1201 16th St., N.W., Washington, D.C. 20036

**POLLUTION**

Six filmstrips with records that illustrate the immediate and critical pollutants, and presents ways in which children can help. Intermediate Grades.

Available from Ealing Films, 2225 Massachusetts Ave., Cambridge, Mass. 02140

**UNDERWATER ENVIRONMENT**

Four filmstrips and four records.

Available from Imperial Film Co., 321 S. Florida Ave., Lakewood, Fla. 33803



Kits, Charts, etc.

**BIOLOGICAL AND CHEMICAL POLLUTION TEST KITS**

Material for the identification of chemical and biological pollution in water.

Available from Scott Scientific, Inc., P.O. Box 21215, Fort Collins, Colo. 80521.

**PASKAL, DOLORES ET AL.**

1969 New Roles and Relationships for Students in School and Community Setting. Wayne County Intermediate School District; Detroit, Mich. 1 p. (ED 034 714).

One game is designed to teach elementary school students about economic, technological and political aspects of air and water pollution control.

## Sources

### THE BOY SCOUTS OF AMERICA

North Brunswick, N.J. 08902

Has teaching aids - booklets, wall charts, etc.

### CHAPMAN, FRANK L.

1969 Marine Science Film Catalogue. Carteret County Marine Science Project; Carteret County, N.C.

### CONSERVING OUR WATER AND CLEARING THE AIR

American Petroleum Institute, 1271 Avenue of the Americas, New York, N.Y. 10020

Includes student manuals, research materials booklet, teacher's guide, and posters - free to teachers and student-teachers.

### CUZON DU REST, R. P.

Films on Oceanography. Superintendent of Documents, U.S. Government Printing Office; Washington, D.C.

### HUG AND SONS

Outdoor Education Specialists, R.D. No. 1, Box 97, Mill Run, Pa. 15464

They have books, learning aids, and equipment.

### JOURNAL OF THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES

1971 A Service of: Student. National Education Association 35: p. 112 (January).

Five filmstrips and five L.P. record albums (high school) showing divergent opinions on pollution topics. Available from National Education Association, 1201 16th St., N.W. Washington, D.C. 20036.

### PENNSYLVANIA DEPARTMENT OF HEALTH FILM LIBRARY

Division of Public Health Education, P.O. Box 90, Harrisburg, Pa. 17120

They have films on air pollution, water pollution and what Pennsylvania is doing to control them.

### YEATER, L. W.

1967 A Field Experience - A Why, A How. Regional Carteret County Marine Science Project; Beaufort, N.C. 13 p. (ED 020830).

Offers marine biology field trip and provides a source of oceanological materials.

### Kindergarten through Twelfth Grade Books

ARNESON, D. J.

1971 Secret Places. Holt, Rinehart and Winston, Inc.; New York, N.Y.

Related to conservation - juvenile reading level.

BARTLETT, MARGARET F.

1963 Down the Mountain. Scott (Addison-Wesley Publishing Co.); Reading, Mass.

Illustrates the dynamics of nature by describing the processes of growth and decay (K-3).

BENNEDICT, JEANNE

A Place to Live. Parents' Magazine Press; New York, N.Y.

An explanation of the interrelationships of all organisms.

BILLINGTON, ELIZABETH T.

Understanding Ecology. Frederick T. Warne and Co.; New York, N.Y.

BRENNAN, MATTHEW J.

People and Their Environment. J. G. Ferguson Publishing Co.; Chicago, Ill.

BURTON, MAURICE

1970 Animal Partnerships. Warne, New York, N.Y. 107p.

British naturalist's examination of various associations (6-9).

BUSCH, PHYLLIS S.

At Home in Its Habitat: Animal Neighborhood. World Publishing Co.; New York, N.Y.

A description of animal homes (K-3).

BUSCH PHYLLIS

1969 Once There Was A Tree. World Publishing Co.; New York, N.Y.

A description of the Community living in and around a tree. (grade K-3).

BUSCH, PHYLLIS S.

1969 Puddle and Ponds: Living Things in Watery Places. World Publishing Co.; New York, N.Y.

Illustrates the variety of habitats that maintain life (K-3).

CARRICK, CAROL AND DONALD CARRICK

1970 The Pond. Macmillan; New York, N.Y.

Identification of the larger, more easily recognized animals that live in a pond (PreS-Grade 1).

CHANNING L. BETE CO.

Man and His Endangered World: ABC's of Human Ecology. Channing L. Bete Co.; Greenfield, Mass.

Introduction to the problems of pollution (Upper grades).

CHARTER, S. P. R.

Man on Earth. Grove; New York, N.Y. (\$1.50).

A philosophical approach to ecology.

DUDLEY, BITSY AND DORIS KING

1969 A Day with Don at Cape Lookout Seashore. Carteret County Marine Science Project; Carteret County, N.C.

A third grade supplementary reader.

DUDLEY, BITSY AND DORIS KING

1969 Don Explores a Tidal Flat. Carteret County Marine Science Project; Carteret County, N.C.

A third grade supplementary reader

FARB, PETER

1963 Ecology. Time-Life Books; New York, N.Y. (\$6.60).

FARB, PETER

The Face of North America. Harper and Row; New York, N.Y.

Description of the natural forces that have shaped the North American Continent including small section on man's effect.

FARRAND, CHARLOTTE, ED.

Ranger Rick. The National Wildlife Federation; Washington, D.C.

A nature magazine for juvenile readers.

FIENDLY, NATALIE

1968 Miraculous Web: The Balance of Life. Prentice-Hall; Englewood Cliffs, N.J.

An introduction to the ecosystems of the tundra, taiga, grasslands, desert, rain forest, and ocean (grade 7 and above).

FULLER, R. BACKMINSTER ET AL.

I Seem to Be A Verb. Gantam; New York, N.Y. (\$1.65).

An investigation of man as an integral part of the universe.

GOETZ, DELIA

1969 Rivers. Morrow; New York, N.Y. 63 p.

Gives a general view of the world's rivers, noting the burden of man's pollution. Uses the Potomac as a typical ecosystem (2-6).

HAWES, JUDY

1969 What I Like About Toads. Cowell; New York, N.Y. 33p.

Life cycle of toads and their importance to man (K-3).

HILTON, S.

1970 How Do They Cope with It. Westminster; Philadelphia, Pa.

Related to conservation - juvenile reading level.

HIRSH, S. CARL

1966 The Living Community. Viking Press; New York, N.Y.

HOGNER, DOROTHY CHILDS

1969 Birds of Prey. Cowell; New York; N.Y. 132 p.

Introduction to the appearance, habitat, and feeding and nesting habits of hawks, eagles, falcons, owls, etc. (PreS-2).

HUNGERFORD, H. R.

1971 Ecology: The Circle of Life. Children's Press, Inc.; Chicago, Ill.

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HURD, CLEMENT

This Is the Forest. Coward-McCann; New York, N.Y.

A description of the rebirth of a forest (K-3).

KORMONDAY, EDWARD J.

1968 Concepts of Ecology. Prentice-Hall; Englewood Cliffs, N.J.

KRUTCH, JOSEPH WOOD

1966 The Great Chain of Life. Pyramid Books; New York. N.Y.

Deals with ecology.

LAYCOCK, G.

1971 Animal Movers: A Collection of Ecological Surprises. Doubleday and Co.; New York, N.Y.

Juvenile reading level.

LAYCOCK, GEORGE

The Alien Animal. Ballantine; New York, N.Y. (\$.95).

The effects of an animal on an alien community.

MARX, WESLEY

The Frail Ocean. Ballantine; New York, N.Y. (\$.95).

A description of the complex and delicate balance of the ocean's ecosystem and of the effects of pollution on it.

MAY, JULLIAN

1969 Alligator Hole. Follett; Chicago, Ill.

Text and watercolors depict the life of the Everglades with emphasis on the alligator (K-3).

McCLUNG, ROBERT M.

1969 Last Wild America: The Story of Our Extinct and Vanishing Wildlife. Morrow; New York, N.Y. 240p.

Depicts the changing condition of wildlife from the 16th Century to the present time (6-9).

McCOY, J. J.

1970 Shadows Over the Land, Seabury; New York, N.Y. 152p.

The author presents the crisis of pollution in several areas and submits some positive action for young readers (grade 6 and up).

MILNE, LORUS AND MARGERY LORUS

1969 The Nature of Animals. Lippincott; Philadelphia, Pa. 255p.

An introduction to the basic processes of animal life - the interrelationships and the balance of nature.

ODUM, EUGENE P.

1963 ECOLOGY. Holt, Reinhart and Winston; New York, N.Y.

PRINGLE, LAWRENCE

1969 The Only Earth We Have. Macmillan; New York, N.Y. 86p.

Illustrates man's abuse of his planet (5-8).

PRINGLE, LAWRENCE

C.1970 From Field to Forest. World Publishing Co.; New York, N.Y.

The book discusses the ways that plants and animals affect the land (4-6).

REID, KEITH

1970 Nature's Network. Natural History Press; Garden City, N.Y.

An introduction to ecology and various ecosystems (grade 7 and above).

SELSA, MELLICENT E.

1964 Birth of a Forest. Harper and Row Publishers, Inc.; Scranton, Pa.

The book traces the succession of a land area from a pond to a marsh to a forest (K-3).

SHAPP, C. AND M. SHAPP

1962 Let's Find Out About Animal Homes. Watts, Franklin, Inc.; New York, N.Y.

A book about animal ecology for kindergarten to primary grade students.

SHUTTLESWORTH, DOROTHY

1970 Natural Partnerships. Doubleday and Co.; Garden City, N.Y.

Explains mutualism, parasitism, commensalism, and other interrelationships (grade 7 and above).

SIMON, HILDA

1970 Partners, Guests, and Parasites: Coexistence in Nature. Viking Press; New York, N.Y.

Illustrates the interrelationships of different life forms.

SIMON, SEYMOUR

A Handful of soil. Hawthorne Books; New York, N.Y.

Middle and upper grade level reading used in conjunction with a unit on pollution of the earth.

SMITH, FRANCES C.

1954 The First Book on Conservation. Watts, Franklin, Inc.; New York, N.Y.

Presents the concepts of ecology (K-3).

SMITH, FRANCES C.

1969 The First Book of Swamps and Marshes. Watts, Franklin, Inc.; New York, N.Y. 64 p.

Presents the different types of wetlands and their importance to other organisms (6-9).

SMITH, ROBERT

1966 Ecology and Field Biology. Harper and Row; New York, N.Y.

STEPHEN, DAVID AND JAMES LOCKIE

1969 Nature's Way. McGraw-Hill; New York, N.Y.

Illustrates various ecosystems and populations (grade 7 and above).

STORER, JOHN H.

1953 The Web of Life. Signet; New York, N.Y. (paperback).

STORER, JOHN H.

1968 Man and The Web of Life. Signet; New York, N.Y.

This book is about the interrelationships among organisms on this planet.

SWAN, LESTER A.

1964 Beneficial Insects. Harper and Row; New York, N.Y.

TEAL, JOHN AND MILDRED TEAL

Life and Death of the Salt Marsh. Ballantine; New York, N.Y. (\$1.25).

A description of the salt marshes and the important part they play in the balance of the environment.

TERRY, MARK

Teaching for Survival. Ballantine; New York; N.Y. (\$1.25).

Guide for changing the educational system so that the classroom environment teaches ecology.

TRESSELT, ALVIN

1970 The Beaver Pond. Lothrop; New York, N.Y.

Pictures and text depicting the life of a pond (PreS-3).

WEAVER, E. C., ED.

1968 Scientific Experiments in Environmental Pollution. Holt, Rinehart and Winston; New York, N.Y.

Deals with the topic of ecology for high school students.

WONG, HERBERT H. AND MATTHEW F. VESSEL

Our Tree, Addison-Wesley; Reading, Mass.

A description of the ecology of a community for grades K-3.

WONG, HERBERT H. AND MATTHEW F. VESSEL

Plant Communities: Where Can Cattails Grow. Addison-Wesley; Reading, Mass.

A description of the ecology of a plant community for grades K-3.

WONG, HERBERT H. AND MATTHEW F. VESSEL

Pond Life: Watching Animals Find Food. Addison-Wesley; Reading, Mass.

A description of the ecology of a pond community for grades K-3.



Environment  
(Ecology, Conservation, and Pollution)  
Books

BLAKE, PETER

1966 God's Own Junk Yard. Holt, Rinehart and Winston; New York, N.Y.

CARAS, ROBERT A.

1966 Last Chance on Earth. Chilton; New York, N.Y.

CARRIGHAR, SALLY

1965 Wild Heritage. Houghton Mifflin; Boston, Mass.

CHRISTIAN, GARTH

1958 A Place For Animals. Butterworth; London, England.

COMMONER, BARRY

1967 Science and Survival. Ballantine; New York, N.Y. (\$1.25).

The book points out that scientific development has brought unforeseen dangers.

COX, G. W.

1969 Readings in Conservation Ecology. Appleton-Century-Crofts; New York, N.J.

DARLING, LOUIS AND LOIS DARLING

1968 A Place in the Sun. Morrow; New York, N.Y.

DASMANN, RAYMOND

1964 Environmental Conservation. John Wiley; New York, N.Y.

DASMANN, RAYMOND

1965 The Destruction of California. Macmillan; New York, N.Y.

DeBELL, GARRETT

The Voters Guide to Environmental Politics. Ballantine; New York, N.Y. (\$.95).

DeBELL, GARRETT, ED.

1970 The Environmental Handbook. Ballantine/Friends of the Earth; New York, N.Y.

A compilation of articles, speeches and excerpts from books on the following topics: meaning of ecology, individual action, and political action.

DeVOS, ANTHONY ET AL.

1968 The Pollution Reader. Harvest House; Montreal, Canada.

DORST, JEAN

Before Nature Dies. Houghton Mifflin Co.; Boston, Mass.

ECKERT, ALLEN W.

1963 The Great Ark. Little Brown & Co.; Boston, Mass.

ECKERT, ALLEN W.

1969 Wild Season. Bantam; New York, N.Y. (paperback)

EHRLICH, PAUL R. AND HARRIMAN, RICHARD L.

How to be A Survivor. A Plan to Save Spaceship Earth. Ballantine; New York, N.Y. (\$1.25).

ENVIRONMENTAL ACTION

1970 Earth Day - The Beginning. Bantam Books; New York, N.Y. 233 p.

Includes speeches given on Earth Day.

ERRINGTON, PAUL L.

1957 Of Man and Marshes. Macmillan; New York, N.Y.

FISHER, JAMES ET AL.

1969 Wild Life in Danger. Viking Press; New York, N.Y.

FORTUNE MAGAZINE

1970 The Environment. Harper and Row; New York, N.Y.

Examination of the problems of the environment and the choices to be made.

FULLER, R. BUCKMINSTER

Utopia or Oblivion. Bantam; New York, N.Y. (\$1.25).

GOLDMAN, MARSHALL I., ED.

1968 Controlling Pollution: The Economics of a Cleaner America. Prentice-Hall; New York, N.Y.

The author sets forth an economic solution to the pollution problems.

GOLDSTEIN, JEROME

1969 Garbage As You Like It. Rodale Books; Emmanus, Pa.

GRAHAM, FRANK, JR.

1970 Since Silent Spring. Houghton Mifflin Co.; Boston, Mass.

Presents the controversy over Rachel Carson's book, Silent Spring, the conflict behind it, and the vindication of the book.

GROUP FOR ENVIRONMENTAL EDUCATION, INC.

Our Man-Made Environment - Book 7. Group for Environmental Education, Inc.; Philadelphia, Pa.

An introduction to the study of our man-made environment: how we are affected by it, what we want of it, and how we can change it to meet our needs.

HERFINDALH, ORVIS C. AND ALLEN KNEESE

1965 Quality of the Environment. An Economic Approach to Some of the Problems in Using Land Water and Air. Johns Hopkins University Press; Baltimore, Md.

HUTH, HANS

1957 Nature and the American: Three Centuries of Changing Attitude. University of California Press; Berkeley, Calif.

JAFFEE, JOYCE

Conservation: Maintaining the Natural Balance. Natural History Press/Doubleday; Garden City, N.Y.

LAYCOCK, GEORGE

The Diligent Destroyers. Ballantine; New York, N.Y. (\$1.25).

An indictment against the Army Corp of Engineers, the strip miners, the highway builders, and others

LEINWAND, GERALD

1969 Air and Water Pollution. Washington Square Press; New York, N.Y. 160 p.

Brief description of air and water pollution and selected readings on problems of air pollution.

LEOPOLD, ALDO

1949 A Sand County Almanac. Oxford University Press; New York, N.Y.

A conservation classic.

MARINE, GENE

America the Raped. Avon; New York, N.Y. (\$1.25).

Condemnation of the people that betrayed the land.

MICHELSON, MAX

The Environmental Revolution. McGraw-Hill; New York, N.Y.

MITCHELL, JOHN G. AND CONSTANCE L. STALLINGS

1970 Ecotactics: The Sierra Club Handbook for Environmental Activitists. Pocket Books; New York, N.Y.

Presentation of the environmental movement in the form of essays and case histories.

MOWBRAY, A. Q.

1969 Road to Ruin. J.B. Lippincott; Philadelphia, Pa.

NASH, RODERICK

1968 The American Environment: Readings in the History of Conservation. Addison-Wesley; Reading, Mass.

OSBORN, FAIRFIELD

1948 Our Plundered Planet. Little, Brown & Co.; New York, N.Y.

A conservation classic.

REVEILLE, ROGER AND H.H. LANDSBERG

America's Changing Environments. Houghton Mifflin; Boston, Mass.

RIENOW, ROBERT AND LEONA TRAIN RIENOW

Man Against His Environment. Ballantine; New York, N.Y. (\$1.25).

Text from a 26 week T.V. comic series.

RIENOW, ROBERT AND LEONA TRAIN RIENOW

1967 Moment in the Sun. Ballantine; New York, N.Y. (paperback).

SEARS, PAUL B.

1962 Where There is Life. Dell Books; New York, N.Y. (paperback).

SMITHSONIAN INSTITUTION ANNUAL

1968 Fitness of Our Environment. Smithsonian Institution Press; Washington, D.C.

SWATEK, PAUL

The User's Guide to the Protection of the Environment. Ballantine; New York, N.Y. (\$1.25).

A consumer's guide to show the effect that the use of products has on the environment.

UDALL, STEWARD L.

1963 The Quiet Crisis. Holt Rinehart and Winston; New York, N.Y.

A conservation classic.

UNITED NATIONS REPORT

Chemical and Bacteriological Weapons and the Effects of Their Possible Use. Ballantine; New York, N.Y. (\$1.25).

VOGT, WILLIAM

1948 The Road to Survival. William Sloane Associates; New York, N.Y.

A conservation classic.

WALT, KENNETH E.

1968 Environmental Control. McGraw-Hill; New York, N.Y.

An exposé of the contradiction between what is said and what is done about environmental control.

ZURHORST, CHARLES

The Conservation Fraud. Cowles; New York, N.Y.

## Handbooks, Reports and Pamphlets

BROWER, DAVID, ED.

1961 Wilderness: America's Living Heritage. Sierra Club; San Francisco, Calif.

### CITIZENS ADVISORY COMMITTEE ON ENVIRONMENTAL QUALITY

1969 Report to the President and to the President's Council on Environmental Quality. The Committee; Washington, D.C. 36 p.

Available from 1700 Pennsylvania Avenue, N.W., Washington, D.C. 20006

FISCHER, RICHARD B.

1970 Pollution, An Environmental Crisis. New York State Education Department, Bureau of Elementary Curriculum Development; Albany, N.Y. (ED 039 142).

Causes and extent of environmental problems.

KILGORE, BRUCE, ED

1966 Wilderness in a Changing World. Sierra Club; San Francisco, Calif.

### THE LEAGUE OF WOMEN VOTERS

1970 Proposals Explained: Environmental Quality. The National Voter. (February-March).

### THE MASSACHUSETTS AUDUBON SOCIETY

The Curious Naturalist. The Society; Lincoln, Mass.

Published during the school year.

### U.S. DEPARTMENT OF THE INTERIOR

Conservation Yearbook (series for 1965, 1966, 1967, 1968, 1970). Superintendent of Documents. Government Printing Office, Washington, D.C.

### U.S. HOUSE OF REPRESENTATIVES

1966 The Adequacy of Technology for Pollution Abatement. Two volumes. U.S. Government Printing Office; Washington, D.C.

Hearings before the Subcommittee on Science Research and Development of the Committee on Science and Astronautics.

### U.S. SENATE

1969 Water Pollution. U.S. Government Printing Office; Washington, D.C.

Hearing before the Subcommittee on Air and Water Pollution of the Committee on Public Works.

## Articles

BORLAND, HAL

1970 The Vindication of Rachael Carson. *Saturday Review* 53: p. 59 (April 4).

BRODEUR, PAUL

1968 The Magic Mineral. *The New Yorker* p. 117-165 (October).

BULLETIN OF THE ATOMIC SCIENTISTS

1965 Man and His Habitat: Problems of Pollution. *Bulletin of the Atomic Scientists*: p. 18-30 (March).

COLE, LAMONT C.

1968 Can the World be Saved? *Bioscience*: p. 679 (July)

COMMONER, BARRY

1968 Nature Unbalanced. How Man Interferes With the Nitrogen Cycle. *Scientists and Citizen*. p. 9-19 (January-February).

COMMONER, BARRY

1970 Beyond the Teach-in. *Saturday Review* 53: p. 50-52+ (April 4).

ECKARDT, WOLF VON

1971 New Town 73 Years Later. *Saturday Review* 54: p. 61 (February 6).

Article deals with the problems of urban growth and what can and is being done about them.

EHRlich, PAUL AND JOHN P. HOLDREN

1971 Who Makes the Babies. *Saturday Review* 54: p. 60 (February 6).

The article explains that it is the middle class and not the poor that taxes the biosphere.

ENVIRONMENTAL POLLUTION PANEL

1965 Restoring the Quality of Our Environment. U.S. Government Printing Office; Washington, D.C.

FEATHERSTONE, JOSEPH

1969 The Silent Epidemic. *New Republic*: p. 13-14 (November).

About lead poisoning from paint.

FROME, MICHAEL

1968 The Trouble with Mining. *Field and Stream*: p. 22+ (December)

GREEN, L., JR.

1967 Energy Needs and Environmental Pollution. A Reconciliation? *Science* 156: 1448-1450

GRINSTEAD, ROBERT B.

1969 No Deposit No Return. *Environment*: p. 17-23 (November).

KNIPLING, E. F.

1965 Pest Control: Biological Methods, Specific Chemical Methods. Scientist and Citizen. p. 1-8 (July).

LIVINGSTON, DENNIS

1968 Pollution control: An International Perspective. Scientist and Citizen: p. 172-182 (September).

LOFRATH, GORAN

1968 Pesticides and Catastrophe. New Scientist 40: 567-568.

LYON, DAVID L.

1967 An Ecologist's View of the Population Problem. The Living Wilderness: p. 31 (Spring and Summer)

MELLANBY, KENNETH

1969 Can Britain Afford to Be Clean? New Scientist 43: 648-650.

McLEAN, LOUIS A.

Pesticides and The Environment. Bioscience 17: p. 13+.

NATION'S SCHOOLS

1970 Bearded and Beardless Join Battle on Pollution. Nation's Schools: p. 63-64 (April).

NATION'S SCHOOLS

1970 "Earth Day" Is Only the Beginning: Student Action Will Go On. Nation's Schools: p. 62-63 (April).

NICHOLSON, H. P.

1967 Pesticide Pollution Control. Science 158: 871-876.

NIERING, WILLIAM A.

1968 The Effects of Pesticides. Bioscience 18: 869-875.

NOVICK, SHELDON ET AL.

1969 A New Pollution Problem. Environment: p. 2+ (May).

RITCHIE-CALDER, LORD

1969 Polluting the Environment. Center Magazine. p. 7-12 (May).

ROBERTS, STEVEN V.

1970 The Better Earth: A Report on Ecology Action, A Brash, Activist, Radical Group Fighting for Better Environment. The New York Times Magazine. 6 p. (March 29).

SAGAN, LEONARD A.

1969 Infant Mortality Controversy: Sternglass and His Critics. Bulletin of the Atomic Scientists: p. 26-32 (October).

SALVIA, JOSEPH D.

1968 Milk and Pesticides. Scientist and Citizen: p. 143-153 (August).



#### SATURDAY REVIEW

1970 Cleaning Humanity's Nest. Saturday Review: p. 47-67 (March).

#### SCIENTIST AND CITIZEN

1968 Scientist and Citizen. (April).

Entire issue is devoted to lead poisoning.

#### SHEA, KEVIN P.

1968 Cotton and Chemicals. Scientist and Citizen: p. 209-219 (November).

#### STARK, J. D.

1969 Industry and Pollution. Chemical and Engineering News: p. 7 (January).

#### WALLACE, ELIZABETH S.

1971 The Individual and the Environmental Revolution. Journal of the National Council for the Social Studies 35: p. 38-43+ (January).

The article is centered on the individual as the key factor in environmental reconstruction.

#### WILLIAMS, C. M.

1967 Third-generation Pesticides. Scientific American: p. 13-17 (July).

#### WOLD, LEONARD

1965 Cleaning Up the Merrimack. Bulletin of the Atomic Scientists: p. 16-22 (April).

#### WOODWELL, G. M.

1967 Toxic Substances and Ecological Cycles. Scientific American: p. 24-31. (March).

## Air Pollution Books

ALEXANDER, TOM

1970 The Environment: A National Mission for the Seventies. Harper and Row; New York, N.Y.

The author explains why combustion is the major source of air pollution.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

1965 Air Conservation. AAAS Publication No. 80; Washington, D.C.

AMERICAN CHEMICAL SOCIETY

1969 Cleaning Our Environment. American Chemical Society; Washington, D.C.

"The Chemical Basis for Action". Available from 1155-16th Street, N.W., Washington, D.C. 20036.

AYLESWORTH, THOMAS G.

1968 This Vital Air, This Vital Water. Rand McNally and Co.; New York, N.Y. 192 p.

Presents facts about pollutants including radioactive emissions, health effects, and control techniques.

BATTAN, LEWIS J.

1966 The Unclean Sky: A Meteorologist Looks at Air Pollution. Anchor Books; Garden City, N.Y. 126 p.

An explanation of meteorology, presented as a means of evaluating solutions to air pollution.

BERNARDE, MELVIN A.

1970 Our Precious Habitat. W.W. Norton and Co.; New York, N.Y., 362 p.

Develops the thesis that although high concentrations of air pollution have been correlated to ill health, low concentrations have not been proven to be detrimental. The book describes in depth the natural defenses of the respiratory system to foreign material.

CARR, DONALD E.

1965 The Breath of Life. Norton; New York, N.Y. (\$.95).

An analysis of air pollution.

EDELSON, EDWARD AND FRED WARSHOFISKY

1966 Poison in the Air. Pocket Books; New York, N.Y. 160 p.

Contends that there is evidence that air pollution is harmful to our health and evaluates the way each industry has responded to the public demands for cleaner air.

**KAVALER, LUCY**

1967    Dangerous Air. John Day Co.; New York, N.Y. 143 p.

Introduction to sources and effects of air pollution in the past and present. Directed at junior high and older.

**LEWIS, HOWARD R.**

1965    With Every Breath You Take. Crown Publishers; New York, N.Y. 322 p.

Aimed at apathy toward air pollution. The book presses for controls on automotive and industrial emissions and describes sources, public concern and governmental reaction to air pollution.

**PERRY, JOHN**

1967    Our Polluted World: Can Man Survive? Franklin Watts; New York, N.Y. 213 p.

Presents how air pollution occurs, dangers it poses, history of its disastrous effects, methods for its control, and possible legislation to reduce it.

**STEWART, GEORGE H.**

1968    Not So Rich as You Think. Houghton, Mifflin; Boston, Mass. 248 p.

Chapters on smog, smoke, carbon dioxide, and atomic waste.

**STILL, HENRY**

1967    The Dirty Animal. Hawthorn Books; New York, N.Y. 298 p.

Describes lesser known air pollution problems and action taken by local communities to control air pollution.

**U.S. PUBLIC HEALTH SERVICE**

1969    Air Pollution Publications: A Selected Bibliography with Abstracts. 1966-1968. U.S. Government Printing Office; Washington, D.C.

**WISE, WILLIAM**

1968    Killer Smog. Rand McNally and Co.; Chicago, Ill. 181 p.

An account of several people who were involved in the London smog of 1952.

## Handbooks, Reports, and Pamphlets on Air Pollution

### AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

1965 Air Conservation, Pub. No. 80. The Association; Washington, D.C. 335 p.

Report to scientists and layman about air pollution and its effects.

### AMERICAN CHEMICAL SOCIETY

1969 Cleaning Our Environment: The Chemical Basis for Action. The Society; Washington, D.C. 249 p.

Describes methods available to detect, predict movement, and control air pollution.

### CHANNING L. BETE COMPANY

1969 Needed: Clean Air. Channing L. Bete Company; Greenfield, Mass.

Presents the facts about air pollution.

### THE CONSERVATION FOUNDATION

1970 Your Right to Clean Air. The Conservation Foundation; Washington, D.C.

Explains the provisions for action in the 1967 Air Quality Act and offers suggestions for public action.

### DEGLER, STANLEY E.

1969 State Air Pollution Control Laws. The Bureau of National Affairs Incorporated; Washington, D.C. 86 p.

### MANUFACTURING CHEMISTS ASSOCIATION

Source Material for Air Pollution Control Laws. The Association; Washington, D.C.

Contains air pollution control statutes.

### MIDDLETON, JOHN T.

1970 Air Pollution: Some Lessons Learned in the United States. U.S. Department of Health, Education and Welfare; Washington, D.C.

### MOBIL OIL CORPORATION

A Primer on Air Pollution. Mobil Oil Corporation; New York, N.Y.

An explanation of the sources of air pollution.

### NADLER, ALLEN A., ET AL.

1970 Air Pollution, A Scientists' Institute for Public Information Workbook. Scientists' Institute for Public Information; New York, N.Y. 32 p. (ED 040 062).

Documentation is presented on the known and potential effects of air pollution on human health, weather conditions and the biosphere.

NATIONAL ASSOCIATION OF MANUFACTURERS. AREA INDUSTRIAL PROBLEMS COMMITTEE  
1962 Cinderella City: How Community Action Transformed Pittsburgh's Smoked-Stained Identity. The Association; New York, N.Y. 12 p.

Emphasizes the cooperation between the community and industry.

#### U.S. CONGRESS

1967 Air Quality Act of 1967. Government Printing Office, Washington, D.C.

#### U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1. Air Quality Criteria: Sulfur Oxides.
  2. Air Quality Criteria: Photochemical Oxidants.
  3. Air Quality Criteria: Particulate Matter.
  4. Air Quality Criteria: Carbon Monoxide.
  5. Air Quality Criteria: Hydrocarbon
- Government Printing Office; Washington, D.C.

Each criteria document gives the effect of different levels of that pollutant on humans, vegetation, and other material.

#### U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1. Control Techniques: Sulfur Oxide Air Pollutants.
  2. Control Techniques: Particulate Air Pollutants.
  3. Control Techniques: Nitrogen Oxide from Stationary Sources.
  4. Control Techniques: Carbon Monoxide, Nitrogen Oxide and Hydrocarbon Emissions from a Mobile source.
  5. Control Techniques: Hydrocarbons and Organics, Stationary Source.
  6. Control Techniques: Carbon Monoxide Emissions from Stationary Source.
- Government Printing Office; Washington, D.C.

Each control technique document presents a state of the art on technology for controlling the emissions of that pollutant.

#### U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1967 Effect of Air Pollution. Public Health Service Publication No. 1556. Government Printing Office; Washington, D.C. 18 p.

Presents the known and suspected effects of various pollutants.

#### U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1968 Sources of Air Pollution and Their Control. Public Health Service Publication No. 1548. Government Printing Office; Washington, D.C. 15 p.

Presents the statistics on the amount and sources of the annual tonnage of "aerial garbage".

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1969 Clean Air Act as Amended (highlights). U.S. Government Printing Office; Washington, D.C. 2 p.

Presents some of the major provisions.

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1970 Progress in the Prevention and Control of Air Pollution: Third Report of the Secretary of Health, Education, and Welfare to the Congress of the United States. Document No. 91-64. U.S. Government Printing Office; Washington, D.C.

Presents activities undertaken by the National Air Pollution Control Administration to fulfill the provisions of the Air Quality Act.

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1970 The Cost of Clean Air: Second Report of the Secretary of Health, Education and Welfare to the Congress of the United States. Document No. 91-95. U.S. Government Printing Office; Washington, D.C.

Presents the amount of emissions and the cost of controlling those pollutants in the United States over a five year interim.

U.S. GOVERNMENT PRINTING OFFICE

1962 Troubled Air. FS 2.98: T75. U.S. Government Printing Office; Washington, D.C. 29 p.

Exploration of what produces air pollutants, their characteristics, the harm they cause, and what is being done about them.

U.S. GOVERNMENT PRINTING OFFICE

1965 Air Pollution and Respiratory Disease. FS 2.2: Ai7/29. U.S. Government Printing Office; Washington, D.C. 22 p.

Developed from laboratory, clinical and epidemiological research, this publication discusses the relationship between air pollution and health.

U.S. GOVERNMENT PRINTING OFFICE

1966 A Digest of State Air Pollution Law. 1966 Edition. FS 2.93: 966 U.S. Government Printing Office; Washington, D.C. 292 p.

Contains a digest of air pollution laws for the fifty states, District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

U.S. GOVERNMENT PRINTING OFFICE

1969 Air Pollution, a National Sample. FS 2.98: Sa4. U.S. Government Printing Office; Washington, D.C. 27 p.

Describes the attempts which have been made to measure the quality of the air that most of us breathe.

U.S. GOVERNMENT PRINTING OFFICE

1966 Clean Air for Your Community. FS 2.98: C58/2. U.S. Government Printing Office; Washington, D.C. 13 p.

Outline of methods and resources to be used in organizing a citizens' clean air group.

U.S. GOVERNMENT PRINTING OFFICE

1966 Guide to Research in Air Pollution. FS 2.98: R31/966. U.S. Government Printing Office; Washington, D.C. 82 p.

This Guide is divided into four sections. The first summarizes the status of air pollution research as a whole. The second lists individual projects under investigation during 1966. The third and fourth sections provide indexes to these projects by subject and by investigator.

U.S. GOVERNMENT PRINTING OFFICE

1966 No Laughing Matter, the Cartoonist Focusses on Air Pollution. FS 2.98: L36. U.S. Government Printing Office; Washington, D.C. 120 p.

In this publication there are 60 cartoons on air pollution that have appeared in a wide variety of newspapers and periodicals.

U.S. GOVERNMENT PRINTING OFFICE

1966 Take Three Giant Steps to Clean Air. FS 2.50/138/2. U.S. Government Printing Office; Washington, D.C. 9 p.

Suggests ways to get the facts on air pollution problems.

U.S. GOVERNMENT PRINTING OFFICE

1966 The Effects of Air Pollution. FS 2.98: EF3/967. U.S. Government Printing Office; Washington, D.C. 13 p.

Disasters and diseases caused by air pollution are reviewed. The booklet discusses the most common pollutants and their effects on life.

U.S. GOVERNMENT PRINTING OFFICE

1967 The Federal Air Pollution Program. FS 2.98: 31/1/967. U.S. Government Printing Office; Washington, D.C. 52 p.

Included is a history of the Federal program and information concerning research, assistance to state and local governments and the abatement and prevention of air pollution.

U.S. GOVERNMENT PRINTING OFFICE

1967 The Sources of Air Pollution and Their Control. FS 2.98: SO8/967. U.S. Government Printing Office; Washington, D.C. 15 p.

Describes the sources of air pollution such as motor vehicles, industry, power plants, space heating, and refuse disposal. Also a description of the controls is given.

U.S. GOVERNMENT PRINTING OFFICE

1970 Third Report of the Secretary of Health, Education and Welfare to the Congress of the United States in Compliance with the Air Quality Act of 1967. Superintendent of Documents, U.S. Government Printing Office; Washington, D.C.

U.S. GOVERNMENT PRINTING OFFICE

1968 Today and Tomorrow in Air Pollution. FS 2.98: T56/2. U.S. Government Printing Office; Washington, D.C. 28 p.

Discussion of the present and future problems of air pollution.

WEST, WALLACE

Clearing the Air: A Layman's Guide to Atmospheric Purity. American Petroleum Institute, Committee on Air and Water Conservation, New York, N.Y.

Presents the facts about the atmosphere and air pollution and discusses one control to reduce photochemical smog.



# Articles

ABELSON, PHILIP H.

1968 Progress Toward Abatement of Air Pollution. Science 160: 257 (April).

AYNSLEY, ERIC

1969 How Air Pollution Alters Weather. New Scientist 44: p. 66-67

BRODINE, VIRGINIA ET AL.

1969 The Wind from Dugway. Environment: p. 2-9+ (January-February)

The article is about the killing of sheep in Utah by a chemical warfare agent.

BULLETIN OF THE ATOMIC SCIENTISTS

1965 Man and His Habitat: The Polluted Air. Bulletin of the Atomic Scientists: p.7-25 (June).

DIXON, J. P. AND J. P. LODGE

1965 Air Conservation Report Reflects National Concerns. Science 148: 1060-1066.

DUBOS, RENÉ

1968 Adapting to Pollution. Scientists and Citizens p. 1-8 (January-February).

FERMI, LAURA

1969 Cars and Air Pollution. Bulletin of the Atomic Scientist. p. 35-37 (October).

FRIEDLANDER, MICHAEL W. AND JOSEPH KARMANN

1969 How Many Children? Environment: p. 2-13 (December).

An examination of a study in Sternglass that correlated infant mortality and radioactive fallout.

GLENN, H.T.

1968 Tooling up the Auto Shop for Smog Control. School Shop 28: p. 34-36 (December).

GOLDSMITH, J. R. AND S. A. LANDAW

1969 Carbon Monoxide and Human Health. Science 162: p. 1352-1359.

HAAGEN SMITH, A. J.

1964 The Control of Air Pollution. Scientific American: p. 24-31 (January).

HAVLICK, S. W.

1968 Water Everywhere and Not a Drop for Free. School Science and Mathematics 68: p. 687-690 (November).

HORN, W. A.

1969 Fishing for a Pollution Solution. American Education 5: p 14-16 (April).

ISLAUER, EDITH

1969 The Ambient Air. The New Yorker: p. 51+ (April).

Describes some of the research that is being done on air pollution.

JOHNSON, KENNETH L. ET AL.

1968 Carbon Monoxide and Air Pollution from Automobile Emissions in New York City. Science 160: p. 67-69. (April).

LANDSBERG, HELMUT E.

1969 Metropolitan Air Layers and Pollution. Garden Journal: p. 54-57. (March-April).

McDERMOTT, W.

1961 Air Pollution and Public Health. Scientific American: p. 49-57. (October).

MORGAN, K. Z.

1963 Permissible Exposure to Ionizing Radiation. Science 139: p. 565-571.

PACK, D. H.

1964 Meteorology of Air Pollution. Science 146: p. 1119-1128.

PANOFSKY, HANS A.

1969 Air Pollution Meteorology. American Scientist 57: p. 269-285.

SARGENT, FREDERICK

1967 Adaptive Strategy for Air Pollution. Bioscience 17: p. 691-697.

SCHAEFER, VINCENT J.

1969 Some Effect of Air Pollution on Our Environment. Bioscience 19: p. 896-897.

SCHAEFER, VINCENT J.

1971 The Treat of the Unseen. Saturday Review: p. 55-57 (February).

A discussion about the invisible air pollutants.

SELIKOFF, I. J.

1969 Asbestos. Environment: p. 2-7 (March).

The hazards of asbestos dust.

STARKMAN, E.S.

1968 Chemical Pollution from Transportation Vehicles. School Science and Mathematics 68: p. 477-487 (June).

STEIF, WILLIAM

1970 Why The Birds Cough. The Progressive: p. 47-54 (April).

Discusses the pollution caused by internal combustion, ways to control it, and alternatives to it.

VAN DUUREN, B. L.

1966 Is Cancer Airborne? Scientist and Citizen: p. 1-6. (January).

Indicates that there is a connection between cancer and air pollution.

WOLMAN, ABEL

1968 Air Pollution: Time for Appraisal. Science 159: p. 1437-1439 (March).

ZIMERING, S.

1968 Drive for Cleaner Air. Journal of School Health 38: p. 509-510 (December).

**Water Pollution  
Books**

ARNOV, BORIS, JR.

1969 Homes Beneath the Sea: An Introduction to Ocean Ecology. Little, Brown & Co.; Boston, Mass. 131 p.

Presentation of the effect of currents, pollution, and parasites and other biological phenomena of the sea on plants and animals.

CARR, DONALD E.

Death of the Sweet Waters. Norton; New York, N.Y. (\$1.25).

Description of the polluting of lakes, rivers, beaches, and streams.

CARSON, RACHEL

1951 The Sea Around Us. Oxford University Press; New York, N.Y.

COCANNOVER, JOSEPH A.

1958 Water and the Cycle of Life. Devin Adair; New York, N.Y.

COWAN, EDWARD

1968 Oil and Water. Lippincott; Philadelphia, Pa.

"The Torrey Canyon Disaster"

GRAHAM, FRANK

1966 Disaster by Default: Politics and Water Pollution. M. Evans; New York, N.Y.

GRAVA, SIGURD

1969 Urban Planning Aspects of Water Pollution Control. Columbia University Press; New York, N.Y.

HANKS, THRIFT G.

1967 Solid Waste Disease Relationship. Public Health Service Publication No. 999-U1H-6. U.S. Government Printing Office; Washington, D.C.

KNEESE, ALLEN V.

1962 Water Pollution: Economic Aspects and Research Needs. Johns Hopkins University Press; Baltimore, Md.

MANNIX, DANIEL P.

Troubled Waters. Pocket Books; New York, N.Y. (\$.95).

Describes the life of a fish and the effects of pollution on its environment.

**NATIONAL ACADEMY OF SCIENCE COMMITTEE ON POLLUTION**

1966 Waste Management and Control. Pub. No. 1400. National Academy of Science; Washington, D.C.

**U.S. HOUSE OF REPRESENTATIVES**

1964 Water Pollution Control and Abatement. U.S. Government Printing Office; Washington, D.C.

1963–1964 Hearings on the Subcommittee of the Committee on Government Operations.

**U.S. HOUSE OF REPRESENTATIVES**

1969 Federal Water Pollution Control Act Amendments – 1969. U.S. Government Printing Office; Washington, D.C.

Hearing before the Committee on Public Works.

**U.S. HOUSE OF REPRESENTATIVES**

1969 Oil Pollution. U.S. Government Printing Office; Washington, D.C.

Hearing before the Committee on Merchant Marine and Fisheries.

### Handbooks, Reports, and Pamphlets

BERG, GEORGE G.

1970 Water Pollution. A Scientists' Institute for Public Information Workbook. Scientists' Institute for Public Information; New York, N.Y. 36 p. (ED 040 065).

OFFICE OF MANPOWER STUDIES

1969 Manpower Requirements for Pollution Control and Water Resources in Indiana and a Related Pollution Control Technology Curriculum. Manpower Report 69-100. Purdue University, Office of Manpower Studies; Lafayette, Ind. 70 p. (ED 029 121).

SCHOONOVER, ROBERT A.

1967 The Fight for Clean Water. Florida State Board of Health; Jacksonville, Fla. 118 p. (ED 012 642).

SHURCLIFF, WILLIAM A.

1968 SST and Sonic Boom Handbook. Citizens' League Against the Sonic Boom; Cambridge, Mass.

## Articles

BONE, QUENTIN AND N. HOLME

1968 Lessons from the Torrey Canyon. *New Scientist* 39: p. 492-493.

BREIDENBACH, ANDREW W. AND RICHARD W. ELDRIDGE

1969 Research and Development for Better Solid Waste Management. *Bioscience* 19: p. 984-988.

CAIRNS, JOHN

1968 We're Not in Hot Water. *Scientist and Citizen*: p. 187-198.

The effects of thermal pollution by power plants.

CARTER, LUTHER J.

1968 Water Pollution: Officials Goaded into Raising Quality Standards. *Science* 160: p. 49-51 (April)

CLARK, EARL

1967 How Seattle is Beating Water Pollution. *Harper's*: p. 91-95 (June).

CLARK, JOHN R.

1969 Thermal Pollution and Aquatic Life. *Scientific American*: p. 18-27 (March)

COLE, LeMONT

1969 Thermal Pollution. *Bioscience* 19: p. 989-992

COMMONER, BARRY

1968 Lake Erie Aging or Ill? *Scientists and Citizen*: p. 254-265 (December).

ENVIRONMENT

1969 Poisoning the Wells. *Environment*: p. 16-23+ (January-February).

The contamination of well water in California by nitrates.

EVANS, DAVID M. AND ALBERT BRADFORD

1969 Under the Rug. *Environment*: p. 3-13+ (October).

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GOTAAS, HAROLD B.

1969 Outwitting the Patient Assassin: The Human Use of Lake Pollution. *Bulletin of the Atomic Scientists*: p. 8-10. (May).

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1968 Inorganic Nitrogen Compounds in Ocean Stagnation and Nutrient Resupply. *Science* 160: p. 884+ (May).

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LOTSPEICH, FREDERICK B.

1969 Water Pollution in Alaska: Present and Future. Science 166: p. 1239-1245.

McCAULL, JULIAN

1969 The Black Tide. Environment: p. 2-16. (November)

MIHURSKY, J.A.

1967 On Possible Constructive Use of Thermal Additions to Estuaries. Bioscience 17: p 698-702.

MONTEGUE, PETER AND KATHERINE MONTEGUE

1971 Mercury: How Much Are We Eating. Saturday Review: p. 50-55 (February).

An examination of the U.S. Government's lack of response to the accumulating evidence against mercury pollution.

OSBORN, G.

1967 Our Water Supply. School Science and Mathematics 67: p. 200-203 (February).

PAUL, BENJAMIN D.

1961 Fluoridation and the Social Scientist: A Review. The Journal of Social Ideas 17: p. 1-12.

SCHRAG, PETER

1969 Life on a Dying Lake. Saturday Review 20: p. 19-21. (September)

SWISHER, R.D.

1969 Detergent Enzymes: Biodegradation and Environmental Acceptability. Bioscience 19: p. 1093-1094.

WALSH, JOHN

1968 Pollution: The Wake of the "Torey Canyon". Science 160: p. 167-169 (April)

WAYMAN, COOPER H.

1965 A Hard Look at Soft Detergents. Bulletin of the Atomic Scientists: p. 22-26 (April)

Chemical Pollution (Pesticides)  
Books

ALLEN, ROBERT PORTER

1957 On the Trail of Vanishing Birds. McGraw-Hill; New York, N.Y.

CARSON, RACHEL

1962 Silent Spring. Houghton Mifflin; Boston, Mass.

Presents the concept of ecology and the destructive effect that pesticides have on the delicate balance of nature.

DEBACH, PAUL. ED.

1964 Biological Control of Insect Pests and Weeds. Reinhold; New York, N.Y.

"Alternative to Pesticides".

LINTON, RON M.

1970 Terracide: America's Destruction of Her Living Environment. Little, Brown and Co.; Boston, Mass. 376 p.

Gives opinions about how the responsibilities for air pollution should be shared by all levels of government.

MILLER, M.W. AND G.C. BERG

1969 Chemical Fallout - Current Research on Persistent Pesticides. Thomas, Charles C., Publisher; Springfield, Ill.

RUDD, ROBERT L.

1964 Pesticides on the Living Landscape. University of Wisconsin Press; Madison, Wis.

WHITESIDE, THOMAS

Defoliation. Ballantine; New York, N.Y. (\$.95).

Examination of military and civilian use of herbicides.



**Handbooks, Reports and Pamphlets on  
Chemical Pollution (Pesticides)**

**DAHLSTERS, DONALD L. ET AL**

1970 Pesticides, A Scientists' Institute for Public Information Workbook. Scientists' Institute for Public Information; New York, N.Y. 28 p. (ED 040 064).

Collection of articles dealing with the economic and ecological ramifications of pest control.

**U.S. SENATE**

1964 Interagency Coordination in Environmental Hazards: Pesticides. II Parts. U.S. Government Printing Office; Washington, D.C.

1963-1964 Hearing before the Subcommittee on Reorganization and International Organization of the Committee on Government Operations.

## Articles

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1969 Some Ecological Benefits of Woody Plant Control With Herbicides. *Science* 165: p. 465-468.

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CHENS, T.

1963 Insect Control in Mainland China. *Science* 140: p. 269-277.

COHEN, ADOLPH I. ET AL.

1965 Pesticide Series No. 1 Problems and Possibilities. *Scientists and Citizens*: p. 1-13 (April)

CONWAY, GORDON R.

1969 A Consequence of Insecticide. *Natural History*: p. 46-54. (February).

DUGAN, R.E. and J.R. WEATHERWAX

1967 Dietary Intake of Pesticide Chemicals. *Science* 57: p. 1006-1010.

FROST, JUSTIN ET AL.

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1969 DDT on Balance. *Environment*: p. 2-17+ (September).

GALSTON, ARTHUR W.

1967 Herbicides in Vietnam. *New Republic*: p. 19-21 (November).

HARBEY, GEORGE R. AND J. D. MANN

1968 Picloram in Vietnam. *Scientists and Citizen*: p. 168-171 (September).

HENKIN, HARMON

1969 DDT on Trail. *Environment*: p. 14-17+ (March).

HIGDON, HAL

1969 Obituary for DDT (in Wisconsin). *New York Times Magazine*: p. 6ff (July).

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1970 Well, If Not DDT, Then What? *New York Times Magazine*: p. 26ff (January).

JACOBSON, M. AND M. BEROZA

1964 Insect Attractants (Substitute for Insecticides). *Scientific American*: p. 20-27 (August).

**Nuclear Pollution  
Books**

ALEXANDER, P.

1965 Atomic Radiation and Life. Penguin Books; Baltimore, Md.

CALDER, R.

1962 Living With the Atom. University of Chicago Press; Chicago, Ill.

CURTIS, RICHARD AND ELIZABETH HOGAN

1969 Perils of the Peaceful Atom. Doubleday; New York, N.Y.

DRYERTON, GENE

Nuclear Dilemma. Ballantine; New York, N.Y. (\$1.25).

A compilation of a series of articles that analyzes the dangers of nuclear power.

NOVICK, SHELDON

1970 The Careless Atom. Dell Publishing Co.; New York, N.Y.

The necessity of atomic power installations across the country is questioned.

RIENOW, ROBERT AND LEONA TRAIN RIENOW

1959 Our New Life With the Atom. Crowell; New York, N.Y.

SCHUBERT, JACK AND RALPH E. LAPP

1957 Radiation. Viking Press; New York, N.Y.

## Articles

INGLIS, DAVID R.

1970 Nuclear Pollution and the Arms Race. *The Progressive*: p. 55-60 (April).

The article is a warning of the dangers of nuclear power plants as the number of plants increase.

NOVICK, SHELDON

1968 Earthquake and Nuclear Power. *Scientist and Citizen*: p. 230-241 (November).

PEARSALL, S. G. and W. WILSHUSEN

1968 Disposal of Chemical and Radioactive Waste. *Journal of Chemical Education* 45: A599-605+ (August-September).

PETERSON, MALCOLM L.

1965 Environmental Contamination from Nuclear Reactors. *Scientist and Citizen*: p. 1-11 (November).

SNOW, JOEL A.

1968 Radioactivity from "Clean" Nuclear Power. *Scientist and Citizen*: p. 97-101 (May).

STERNGLASS, E. J.

1969 Has Nuclear Testing Caused Infant Deaths? *New Scientist* 43: 178-181.

WELFORD, G. A. AND W. R. COLLINS, JR.

1960 Fallout in New York City During 1958. *Science* 131: 1711-1715.

WOODWELL, G.M.

1963 The Ecological Effects of Radiation. *Scientific American*: p. 40-49 (June).

WOODWELL, G.M.

1967 Radiation and the Patterns of Nature. *Science* 156: p. 461-470.

WOODWELL, G.M.

1969 Radioactivity and Fallout: The Model Pollution. *Bioscience* 19: 884-887.

Human Ecology  
Books

BENARDE, MARVIN A.

1968 Race Against Famine. Macrae Smith; Philadelphia, Pa.

BORGSTROM, GEORGE

1967 The Hungry Planet. Collier Macmillan; New York, N.Y.

EHRlich, PAUL R.

1968 The Population Bomb. Ballantine; New York, N.Y.

EHRlich, PAUL AND ANN EHRlich

1970 Population, Resources, Environment: Issues in Human Ecology. W.H. Freeman and Co.; San Francisco, Calif. 383 p.

The book centers on the interrelated environmental problems caused by over-population.

HARDIN, GARRETT

1969 Population, Evolution and Birth Control: A College of Controversial Ideas. Freeman; San Francisco, Calif.

HERBER, LEWIS

1962 Our Synthetic Environment. Knopf; New York, N.Y.

HERBER, LEWIS

1965 Crisis in Our Cities. Prentice Hall; Englewood Cliffs, N.J.

PADDOCK, WILLIAM AND PADDOCK, PAUL

1967 Famine——1975! Little, Brown & Co.; Boston, Mass.

VOGT, WILLIAM

1960 People. William Sloane Association; New York, N.Y.

## Articles

ANTHROP, DONALD F.

1969 Environmental Noise Pollution: A New Threat to Sanity. Bulletin of the Atomic Scientist: p. 11-16 (May).

BAILEY, ANTHONY

1969 Noise is a Slow Agent of Death. New York Times Magazine: p. 46 ff (November).

BARLOW, BORIS V.

1969 Should We Ban the Boom? New Scientist 43: 434-436.

BERANEK, L.L.

1966 Noise. Scientific American: p. 66-76. (December).

BRAGDON, CLIFFORD R.

1968 Noise - A Syndrome of Modern Society. Scientist and Citizen: p. 29-37. (March).

HOCKEY, R. AND C. HOLLOWAY

1969 Noise and Efficiency. New Scientist 42: 244-248.

DRYTER, R. D.

1966 Psychological Reaction to Aircraft Noise. Science 151: 1346-1355.

KRYTER, K. D.

1969 Sonic Booms from Supersonic Transport. Science 163: 359-367.

MECKLIN, JOHN M.

1969 It's Time to Turn Down All That Noise. Fortune: p. 130-133+ (October)

SCIENTIST AND CITIZEN

1968 Sonic Boom in Relation to Man. Scientist and Citizen; p. 223-229 (November).

WILSON, H.A., JR.

1962 Sonic Boom. Scientific American. p. 36-43. (January).

## Environmental and Outdoor Education – Projects

### APPLIED LIFE SCIENCE

Mr. M. Zirkes, Chairman of Science, Park Ridge High School, Park Ridge, N.J. 07565

Activity-oriented approach to the biological and environmental sciences. The students will study air and water pollution and modern biological laboratory techniques.

### THE BALARAT CENTER FOR ENVIRONMENTAL STUDIES

C1969 Denver Public Schools, Denver, Colo.

### CENTER FOR ENVIRONMENTAL EDUCATION

1967 Mr. Robert E. Collins, Director, 5400 Glenwood Ave., Minneapolis, Minn. 55422

Objective is to develop and test model staff development programs in Environmental Sciences. To develop and test inquiry-oriented, interdisciplinary instructional materials and programs based on socio-ecological interrelationships, and to assist schools and agencies.

### CLASSROOM OF TODAY'S WORLD

Miss Evelyn Hunt Ogden, Throckmorton Lane, Old Bridge, N.J. 08851

Activities centered on environmental learning experiences.

### COMPREHENSIVE POPULATION EDUCATION PROJECT

1970 Robert W. Stezner, Delaware University, Newark, Del. 8 p. (ED 039 136).

Deals with human population, human needs, the environment, and problems raised by the interrelationships of these factors.

### CONSERVATION CURRICULUM IMPROVEMENT PROJECT

Albert H. Dorsey, Chief Supervisor, Curriculum Development Section, South Carolina Department of Education, Room 801, Rutledge Building, Columbus, S.C. 29201

The project provides "teacher guides" for conservation education (integrating conservation education with the total school program), background knowledge (elucidating the principles of teaching conservation education), interdisciplinary materials, and cooperative programs for schools and other interest groups.

### THE CONSERVATION AND ENVIRONMENTAL SCIENCE CENTER FOR SOUTHERN NEW JERSEY

Dr. V. Eugene Vivian, Box 2230, R. D. 2, Brown Mills, N.J. 08015

Intended to develop viable environmental education programs and a center for their use.

### COOPERATIVE UNIVERSITY-HIGH SCHOOL-COUNTY PARKS PROGRAM IN ECOLOGY

Mrs. Carolyn A. Gibson, Room 2633, Cathedral of Learning, Pittsburgh, Pa. 15213

This project for Grades 7-12 for the 1970-1971 academic year puts emphasis on development of an area for investigation, literature search, problem identification, experimental design, statistical evaluation, and final reporting. The teachers, working with the same procedure, will develop a segment of an environmental curriculum in ecology.

#### DEVELOPMENT OF A NATURE CENTER

Mr. T. Russell Frank, 409 Easton Road, Glenside, Pa.

#### ECCP - THE MAN MADE WORLD

1965 Dr. E. J. Piel, Box 100, 333 Jay St., Brooklyn, N.Y. 11201

The project is concerned with high schools, community colleges, and liberal arts colleges. The course material covers science, mathematics, and social science. Emphasizes the use of "systems" approach to solving social, personal, political, and environmental problems.

#### ENVIRONMENTAL SCIENCE

Mr. Lee F. Browne, 351 South Hudson St., Pasadena, Calif. 91106

The center has developed curriculum guides for outdoor education, conservation, pollution, and environmental systems.

#### ENVIRONMENTAL SCIENCE CENTER

Mr. Richard J. Myshak, 4800 Glennwood Ave., Minneapolis, Minn. 55422

Provides in-service training and curriculum development services.

#### ENVIRONMENTAL STUDIES INSTITUTE

Dr. James R. Manwaring, Executive Director, Environmental Studies Institute, 1117 East Genesee St., Syracuse, N.Y. 13201

The institute produces instructional programs, serves as an instructional resource center, and does research and evaluation on existing programs. Programs are primarily in the field of environmental quality, human ecology, and land, water, and air pollution. (Elementary School - college).

#### FAIRFIELD PUBLIC SCHOOLS

Dr. Bette J. DelGiorno, Fairfield, Conn.

Developed the curriculum guides listed:

1. School yard laboratory study (K-6)
2. River laboratory study (3-6)
3. Marine biology and oceanography (K-6)
4. Ecology (K-6)
5. Environmental studies and open spaces (K-6)
6. Science as an integrated study (7-8)





#### FIELD ECOLOGY

Mr. Jesse M. Harris, Dallas Public School, 3700 Ross Ave., Dallas, Tex. 75204

Offers a field ecology course for advanced biology students.

#### HABITAT AND RESOURCES

Association of American Geographers, 1146-16th St., N.W., Washington, D.C. 20036

Offers a unit that emphasizes the interaction of man and his natural environment.

#### HIGH ROCK NATURE CONSERVATION CENTER

George O. Pratt, Jr., Nevada Ave., Staten Island, N.Y. 10306

Has programs for K-12, adult education, teacher education, and general public.

#### INDEPENDENCE OUTDOOR LABORATORY

Charlotte, N.C.

Environmental Education Program (K-12). Curriculum themes include environmental education (11-12), field ecology (10), Life science (basic ecology (7)), and interrelationships of plants and animals (succession (6)).

#### JEFFERSON COUNTY OUTDOOR EDUCATION PROGRAM

Jefferson County Schools, Lakewood, Colo.

Developed a one week resident outdoor education program with its main emphasis on ecological relationships. Oriented toward 6th grade classes.

#### KUTZTOWN PILOT PROJECT

Kutztown Area School District, Kutztown, Pa.

Involved in the National Environmental Education Development pilot program.

#### LAKESIDE NATURE CENTER

Mr. Daniel G. Dougherty, 5600 East Gregory Blvd., Kansas City, Mo. 64132

Serves pre-school to sixth grade classes and strives to promote environmental awareness.

#### LIFE SCIENCE INVESTIGATION

Mr. James Joseph Gallagher, Director, ERC Science Program, Educational Research Council of America, Rockefeller Bldg., Cleveland, Ohio 44113

A one-year course for seventh grade students that involves the interrelationships between living things and man.

#### MARINE INFORMATION PROGRAM

Mr. L.W. Longaker, P.O. Box 325, Manteo, N.C. 27954

Plan to develop a summer marine program including a marine biology course, a navigation and seamanship course, a program for training teachers to teach oceanography, and a program to integrate a marine science unit into grades 3-9.

#### MARINE SCIENCE

Mr. Gene P. Kinghan, Science Department Chairman, Shelter Island High School, Shelter Island, N.Y. 11964

An "... in-depth study of the marine organisms is made, based upon the foundation received in biology the year before".

#### MARINE SCIENCE EDUCATION CENTER

Mr. Jack Berile, Mayport, Fla. 32233

Grades 6-12. Elementary students have one day to do work in biology, physics, and chemistry that is related to the sea. Secondary school students come to the center weekly and work on topics that interest them.

#### NATURAL - RESOURCE CENTER

1967 Elizabeth and Richard Green, Davidson County Metropolitan Public Schools, Nashville, Tenn. 79 p. (ED 038 206).

#### NATURAL RESOURCE EDUCATION, DEMONSTRATION CENTER

Ms. Beverly H. Southern, 503 Oak Street, DeKalb, Ill. 60115

Object of the center is to develop environmental understanding and responsibility in students, teachers, and community.

#### NATURAL SCIENCE RESIDENT CAMP

Mr. Richard C. Dawson, Park and Recreation Department, 5600 E. Gregory Blvd., Kansas City, Mo. 64132

Summer resident center students choose their own ecological research investigation to perform.

#### NATUREALM

Mr. William M. Barnhart, Associate Director, P.O. Box 87, Duncansville, Pa.

Development of a curriculum guide and a center for outdoor education.

#### OCEANOGRAPHIC EDUCATION CENTER

Mr. James C. Kinney, P. O. Box 585, Falmouth, Mass. 02541

Summer course in oceanography for teachers and development of teaching aids

#### OUTDOOR EDUCATION CENTER

C.1967 Mr. John B. Cox, P.O. Box 1927, Albuquerque, N.M.

Teacher Workshops and Day programs in geology, biology (ecology, zoology and botany), conservation, and mathematics are offered.

#### OUTDOOR EDUCATION LABORATORY

Mr. David C. Thorton, 260 W. 6th Street, Constantine, Mich. 49042

Involvement of students in the development, utilization, and maintenance of the outdoor laboratory. Direct involvement includes cultivation of soil plots, management of pine plantation, and bird banding.

#### OUTDOOR EDUCATION SCHOOL

Mr. Edwin Wager, 701 N. Madison, Stockton, Calif. 95202

Developed curriculum guides for one week resident programs involving conservation education, ecology, marine tidal pool studies, and earth science.

#### OUTDOOR LABORATORY

Newark School District, Newark, Del.

Developed a curriculum guide (K-5) for the outdoor laboratory. It includes pre-trip orientation, nature study, indoor-outdoor study for grade four at Science Museum, and development of a nature center on school grounds.

#### P.L.E.A.S.E. (POLLUTION LIFE AND EARTH APPLIED SCIENCE ENRICHMENT)

The New Jersey State Council for Environmental Education, Mountain Lakes, N.J.

Object was to provide pollution control instruction and to establish air and water pollution monitoring stations.

#### POLLUTION CONTROL CENTER

Union Public Schools, Administration Bldg. 2369 Morris Ave., Union, N.J. 07803

#### PROJECT S.P.R.U.C.E.

1969 Final Report and Evaluation of Project S.P.R.U.C.E. (Science Project Related to Upgrading Conservation Education) Ms. Phyllis S. Busch, Ulster County Board of Cooperative Education Services, New Platz, N.Y.

Project S.P.R.U.C.E. is an environmental approach to elementary school science teaching.

#### REGIONAL ACADEMIC MARINE PROGRAM

The New Jersey State Council for Environmental Education, Mountain Lakes, N.J.

Development of teaching units in marine science and of a summer school program in marine biology for elementary and secondary schools.

#### THE REGIONAL MARINE SCIENCE PROJECT

Mr. Will Hon, Carteret County Public Schools, Carteret County, N.C.

Experiments in the use of field biology as an approach to understanding coastal environment.

#### REGIONAL OUTDOOR EDUCATION

Mr. Warren C. Gilfillan, 1441 S.E. 122nd Street, Portland, Ore. 97230

Week long resident outdoor education program for 6th graders.

#### RESOURCE-USE OUTDOOR EDUCATION CENTER

1970 P.O. Box 539, Perry, Fla. 32347

Evaluation method for the outdoor education center program on environmental studies.

#### RUTLAND NATURE AREA DEVELOPMENT PROJECT

Mr. Thomas G. Chesley, Dann School, Rutland, Vt.

Developing a "total environmental education program" for K-12, an in-service teacher training program, and a natural area for study.

#### SCHOOL COMMUNITY OUTDOOR EDUCATION PROJECT

Mr. Norbert Ziemer, 27 N. Main St., Crystal Lakes, Ill. 60014

Developed a curriculum guide and promotes the use of the center by the schools.

#### SCIENCE INTERPRETIVE CENTER

Mr. Richard C. Cole, Sandy Hook State Park, Box 57, Atlantic Highlands, N.J. 07732

Studies are conducted on a barrier beach in the fields of geology, biology, and marine ecology for elementary and secondary schools.

#### SEVENTH GRADE LIFE SCIENCE

Mrs. Mariana R. Becker, Science Supervisor, 735 Pembroke Ave., Norfolk, Va. 23507

Activity-oriented ecological approach to the life sciences. It offers units on the community, the dynamics of living things, interrelationships, and man's relation to his environment.

#### SOUTHEASTERN PENNSYLVANIA OUTDOOR EDUCATION CENTER

Mr. Larry B. Stratton, South Eastern Pennsylvania Outdoor Education Center, Sycamore Mills Rd., Media, Pa. 19063

Develops curriculums for K-graduate school and vocational schools, trains teachers, and provides for a nature center.

#### STEPPING STONE ENVIRONMENTAL EDUCATION CENTER

Mr. Donald S. Calderon, R.D. No. 1 - Box 369A, Branchville, N.J. 07826

Resident program, Rolling Nature Center, day-use centers, summer enrichment programs, and in-service teacher training programs.

**SUMMER INSTITUTE IN FIELD ECOLOGY AND GEOLOGY**

C.1967 Mr. Jay E. Anderson, 825 Pennsylvania Ave., Deer Lodge, Mass.

A problem solving approach to ecology and geology is used in this summer program.

**THE 1967 SUMMER SCIENCE PROJECT AT UNIVERSITY SCHOOL**

Mr. Jonathan E. Ingersoll, Cleveland Public Schools, Cleveland, Ohio 54 p. (ED 014 436).

Describes a six week summer program which contributes to development of educational programs in the natural sciences and introduces urban and suburban students to the natural earth.

**TOTAL EDUCATION IN THE TOTAL ENVIRONMENT (TETE)**

1964 Mr. William R. Eblen, TETE Project Director, 954 Ridgefield Rd., Wilton, Conn. 06897.

Course development in ecology of man (interdisciplinary approach for K-6).

**WAVE HILL CENTER ENVIRONMENTAL STUDIES**

1970 The Wave Hill (Fordham University) Environmental Education Summer Program, Bronx, N.Y.

Programs for elementary and high school students and an evaluative instrument for the program.

### Organizations and Agencies

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN  
2401 Virginia Ave. N.W., Washington, D.C. 20037

Resource directory on pollution control.

AMERICAN CANCER SOCIETY  
43 South Main St., Doylestown, Pa. 18901

Material related to air pollution.

AMERICAN EDUCATION PUBLICATIONS EDUCATION CENTER  
Columbus, Ohio 43216

Material for Grades 7-12. Science in City and Suburbs No. 341, Our Polluted World No. 361, What Insect is That? No. 357. (\$.30 each).

AMERICAN INSURANCE ASSOCIATION  
110 Williams Street, New York, N.Y. 10038

Kit entitled "Conserving Our Waters and Clearing the Air."

AMERICAN LITTORAL SOCIETY  
Sandy Hook, Highlands, N.J. 07732

"Fish and Man in Conflict in the Atlantic Estuaries." (\$1.00)

AMERICAN MUSEUM OF NATURAL HISTORY  
Central Park West at 79th St., New York, N.Y. 10024

List of publications, slides, and films that are available. The topics include ecology.

AMERICAN PETROLEUM INSTITUTE  
1271 Avenue of the Americas, New York, N.Y. 10020

Source for material on air and water pollution.

BUCKS COUNTY OFFICE OF THE SUPERINTENDENT OF SCHOOLS  
Mr. Edward H. Garlitz, Science Curriculum Consultant. Administration Bldg., Doylestown, Pa. 18901

Provides consulting aid in development programs and workshops (for teachers) in environmental education.

BUREAU OF RECLAMATION  
U.S. Department of the Interior, 19th and C St., N.W., Washington, D.C. 20240

Material on air and water pollution.

**CLEAN WATER**

Washington, D.C. 20242

Suggestion for fighting water pollution.

**CONSERVATION EDUCATION COORDINATOR**

Bureau of Sports Fisheries and Wildlife, U.S. Department of Interior, 730 N.E. Pacific Street, Portland, Ore. 97208

**CONSERVATION EDUCATION OFFICER**

Forest Service, U.S. Department of Agriculture, P.O. Box 3623, Portland, Ore.

**CONSERVATION EDUCATION OFFICER**

Soil Conservation Service, 507 Federal Building, 701 N.W. Glisan St., Portland, Ore. 97209

**CONSERVATION FOUNDATION**

1250 Connecticut Ave., N.W., Washington, D.C. 20036

Pamphlets and articles pertaining to ecology.

**CONSULTANT ON CONSERVATION AND OUTDOOR EDUCATION**

State Department of Education, 312 Public Service Bldg., Salem, Ore. 97310

**CORPORATE COMMUNICATIONS**

Mr. Edward J. Donn, Vice President, Zurn Industries, Erie, Pa. 16512

Pamphlets concerning air, land, and water pollution control methods and equipment - technical.

**DEFENDERS OF WILDLIFE**

2000 N. St., N.W., Washington, D.C. 20036

Free pamphlets for educational purposes and a quarterly magazine for members.

**DELAWARE VALLEY CITIZENS' COUNCIL FOR CLEAN AIR**

311 South Juniper St., Philadelphia, Pa. 19107

Free material and information concerning air pollution.

**DEPARTMENT OF AIR POLLUTION CONTROL**

9722 W. Watertown Plank Rd., Milwaukee, Wis. 53226

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE  
Washington, D.C. 20201

The Office of Education provides Title III grants and services for environmental education programs of activities and materials. The Public Health Service provides research, training, technical assistance, and grants-in-aid for air pollution and solid waste control.

EDUCATION AGENT

Information and Education Division, Oregon State Game Commission, P.O. Box 3503, Portland, Ore. 97208

EDUCATIONAL RELATIONS SECTION

Soil Conservation Service, Department of Agriculture, Washington, D.C. 20250

Publications on teaching about soil-water-plant relationships and a monthly magazine on general conservation.

EDUCATION SERVICE DEPARTMENT

National Audubon Society, 1130 Fifth Avenue, New York, N.Y. 10028

Study programs and other material.

THE ENGINEERING AND TECHNICAL SOCIETIES

Miss Peggy Breen, ETSCO Speakers Bureau, The Franklin Institute, 20th St. and the Parkway, Philadelphia, Pa. 19103

Directory and Speakers Bureau listing. Free programs on pollution of environment suitable for junior high students.

ENGINEERING CONCEPTS CURRICULUM PROJECT

Polytechnical Institute of Brooklyn, 333 Jay Street, Brooklyn, N.Y. 11201

"The Pollution Trap", Technical Note 111 from ECCP Newsletter.

ENVIRONMENT

P.O. Box 755, Bridgeton, Mo. 63044

A layman's magazine which gives technical information on pollution.

ENVIRONMENTAL ACTION

666 11th Street, N.W., Washington, D.C. 20001

Bi-weekly newsletter and action handbooks.

ENVIRONMENTAL DEFENSE FUND

162 Oldtown Road, East Setauket, N.Y. 11733

Newsletter to members. Legal advice.



**ENVIRONMENTAL PROTECTION AGENCY**

Clean Water, Attention: Publications Office, Washington, D.C. 20460

**ENVIRONMENTAL RESOURCES, INC.**

Room 300, 2000 P St., N.W., Washington, D.C. 20036

Fact sheet on pollution problems, curriculums, information on local resources and research facilities.

**ENVIRONMENTAL MAGAZINE**

438 N. Skinker St., Louis Mo. 63130

Monthly publication that deals with the effects of technology on our environment.

**FEDERAL WATER POLLUTION CONTROL ADMINISTRATION**

Office of Public Information, Crystal Mall, 1921 Jefferson Davis Highway, Arlington, Va. 22202

"The Federal Water Pollution Control Program", "Needed: Clean Water", "About Boats and Water Pollution", "A New Era for America's Waters", "Showdown for Clean Water", "What You Can Do About Water Pollution", "Pollution Caused Fish Kill". (Free or minimal).

**THE GARDEN CLUB OF AMERICA**

598 Madison Ave., New York, N.Y. 10022

Active at the local level in beautification conservation and open space planning.

**GENERAL FEDERATION OF WOMEN'S CLUBS**

1734 N. St., N.W., Washington, D.C. 20036

Offers incentive awards for out-standing projects to meet local needs. Its conservation department assists local agencies with their projects in conservation and recreation.

**HUGH MOORE FUND**

60 East 42nd St., New York, N.Y. 10017

Material on population problems and birth control procedures. List of working organizations.

**HUMBLE OIL AND REFINING COMPANY**

P.O. Box 218D, Houston, Tex. 77001

**INTERSTATE PRINTERS, INC.**

Danville, Ill. 61832

They distribute materials published by the National Association of Biology Teachers - free and inexpensive materials, bibliographies, films and filmstrips.

LEAGUE OF WOMEN VOTERS OF THE UNITED STATES  
1200 - 17th Street, N.W., Washington, D.C. 20039

LIFE EDUCATION PROGRAM  
Box 834, Radio City Station, New York, N.Y. 10019

Reprint No. 69 - "Air Pollution".

ISSAC WALTON LEAGUE OF AMERICA  
1326 Waukegan Road, Glenview, Ill. 60025

Conservation newsletters, leaflets, and a pamphlet entitled "Clean Water—It's Up to You".

KEEP AMERICA BEAUTIFUL, INC.  
99 Park Avenue, New York, N.Y. 10016

National, non-profit, public service organizations for the prevention of litter and for the enhancement of urban and rural scenic and man-made beauty.

LOWER BUCKS COUNTY JOINT MUNICIPAL AUTHORITY  
Levittown, Pa. 19053

Pamphlet on water and sewage treatment plant procedures.

MANUFACTURING CHEMISTS ASSOCIATION  
1825 Connecticut Ave., N.W., Washington, D.C. 20009

Films for loan on conservation and pollution.

NATIONAL AIR POLLUTION CONTROL ADMINISTRATION  
Publication Unit, 5600 Fishers Lane, Rockville, Md. 20852

Free material on air pollution (specify—teacher or private citizen, what level and subject—when ordering).

NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS  
1025 Vermont Ave., N.W., Washington, D.C. 20005

"The Environmental Action Guide". This leaflet lists projects and available material.

NATIONAL ASSOCIATION OF COUNTIES  
Suite 522, 1001 Connecticut Ave., N.W., Washington, D.C. 20036

Publishes a variety of information on air and water pollution, parks, etc.

NATIONAL CENTER FOR AIR POLLUTION CONTROL  
Department of Health, Education and Welfare, Washington, D.C.

Offers grants, technical assistance, and personnel training for air pollution control programs.

**NATIONAL PARKS ASSOCIATION**

1701 - 18th St., N.W., Washington, D.C. 20036

Pamphlets on thermal pollution, noise pollution, pesticides, and basic ecology.

**NATIONAL PARKS AND CONSERVATION ASSOCIATION**

1701 - 18th St., N.W., Washington, D.C. 20036

For members - "The Environmental Journal" (semi-technical).

**NATIONAL PLANT FOOD INSTITUTE**

1700 K. St., N.W., Washington, D.C. 20006

**NATIONAL TUBERCULOSIS AND RESPIRATORY DISEASE ASSOCIATION**

1740 Broadway, New York, N.Y. 10019

Also

Bucks County Tuberculosis and Respiratory Disease Association, Doylestown, Pa. 18901

Literature on air pollution.

**NATIONAL WILDLIFE FEDERATION**

1412 16th St., N.W., Washington, D.C. 20036

State and National Conservation directory of sources of conservation and environmental information.

**THE NATURE CONSERVANCY**

Suite 800, 1800 North Kent Street, Arlington, Va. 22209

Preserves specific areas, works with groups, and produces a quarterly magazine for its members.

**OFFICE OF EDUCATION**

Department of Health, Education and Welfare, Washington, D.C.

Curriculum development and innovative center grants for local school systems. Grants for adult education on community problems such as urban planning and conservation.

**OPEN SPACE INSTITUTE**

145 East 52nd St., New York, N.Y. 10022

Intermittent reports with membership; publications, especially on ways leaders can preserve open spaces.

**PENNSYLVANIA DEPARTMENT OF EDUCATION**

Bureau of General and Academic Education, Box 911, Harrisburg, Pa. 17126

List of publications on Outdoor Education 1968-1969. Guidelines for Environmental Sensitivity, 1969.

**PENNSYLVANIA DEPARTMENT OF HEALTH FILM LIBRARY**

Division of Public Health Education, P.O. Box 90, Harrisburg, Pa. 17120

Films on air and water pollution and what is being done about them.

**PENNSYLVANIA DEPARTMENT OF HEALTH, REGION VII**

Philadelphia State Office Bldg., 1400 West Spring Garden St., Philadelphia, Pa. 19130

Pamphlets on air and water pollution.

**PLANNED PARENTHOOD ASSOCIATION OF BUCKS COUNTY**

Sellersville, Pa. 18960

Free information on birth control and population problems.

**PLANNED PARENTHOOD, WORLD POPULATION**

515 Madison Ave., New York, N.Y. 10022

Bibliography, film guide, and reprints.

**POPULATION CRISIS COMMITTEE**

1730 K. St., N.W., Washington, D.C. 20006

Free bi-monthly newsletter; federal policy statement; other publications.

**POPULATION REFERENCE BUREAU**

1955 Massachusetts Ave., N.W., Washington, D.C.

Bibliography, source list, and film guide on population.

**PORTLAND CEMENT ASSOCIATION**

Old Orchard Rd., Skokie, Ill. 60076

"Public bond issue campaigns", "Financing Water and Sewage Works" (Free).

**PORTLAND CENTER OF CONTINUING EDUCATION**

P.O. Box 1491, Portland, Ore. 97201

"Observing Our Environment" written to orient elementary students to the environment.

**PROJECT MAN'S ENVIRONMENT**

National Education Association, 1201 - 16th St., N.W., Washington, D.C. 20036

Information on environmental study areas.

**PUBLIC AFFAIRS PAMPHLETS**

381 Park Ave., South, New York, N.Y. 10016

Two pamphlets – "An Environment Fit for People" and "The Battle for Clean Air".

**RESOURCE UTILIZATION SPECIALIST**

Bureau of Land Management, U.S. Department of Interior, P.O. Box 2965, Portland, Ore. 97208

**SAINT REGIS PAPER CO.**

150 East 42nd St., New York, N.Y. 10017

Charts on forest ecology.

**SIERRA CLUB**

Mills Tower, San Francisco, Calif. 94104

Bibliography and information pertaining to pollution and population.

**SHELL OIL COMPANY**

50 W. 50th St., New York, N.Y. 10020

**STATE FORESTER**

State Forester Department, 2600 State St., Salem, Ore. 97310

**SUPERINTENDENT OF DOCUMENTS**

Government Printing Office, Washington, D.C. 20402

Publishes pamphlets on pollution.

**U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE**

National Air Pollution Control Administration, 801 North Randolph St., Arlington, Va. 22203

Literature and posters on air pollution.

**U.S. DEPARTMENT OF INTERIOR**

National Park Service, N.E. Region, 143 South Third St., Philadelphia, Pa. 19106

Program on Environmental Education.

**WATER RESOURCES ASSOCIATION OF THE DELAWARE RIVER BASIN**

901 Stephen Girard Bldg., 21 South 12th St., Philadelphia, Pa. 19107

Literature on pollution and flood and water supply problems.

**THE WILDERNESS SOCIETY**

729 - 15th St., N.W., Washington, D.C. 20005

Pamphlets, reports, and reprints on preservation and use of our natural resources.

**WILDLIFE MANAGEMENT INSTITUTE**

709 Wire Bldg., Washington, D.C. 20005

Free copy of material on wildlife; consultation with public agencies.

**ZERO POPULATION GROWTH**

367 State St., Los Altos, Calif. 94022

Disseminates newsletters, brochures, ecology leaflets, and reprints.

## Bibliographies

### BUREAU OF GENERAL AND ACADEMIC EDUCATION

1970 Conservation and Outdoor Education Workshops. Department of Education, Harrisburg, Pa.

A national directory of workshops on outdoor education.

### CARVAJAL, JOAN AND MARTHA E. MUNZER

1968 Conservation Education, A Selected Bibliography. Conservation Education Association, Billings, Mont. (ED 017 480).

The document categorizes titles in the areas of ecology, quality of the environment, etc.

### CONSERVATION AND ENVIRONMENTAL SCIENCE CENTER

1970 Pamphlet: listing of CESC books and materials. The Center; Brown Mills, N.J.

Textbooks, programs, and materials.

### CROFTS EDUCATIONAL SERVICE INC.

1970 Secondary Curriculum Letter 9: 1 p. (April).

Where to search for aids to environmental education.

### DEMSEY, DAVID

1970 Environment Bookshelf. Saturday Review: p. 61 (March 7).

### EDUCATION, U.S.A.

1970 Previews of Magazines, TV, Radio, Books, Reports. Education, U.S.A.: p. 172.

### HEPBURN, LAWRENCE AND MARY HEPBURN

1970 Instructional Media: Media for Teaching About the Environment. Journal of the National Council for the Social Studies 35: p. 93-100 (January).

### JOURNAL OF THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES

1971 ERIC Clearinghouse - Environmental Education: Sources and Approaches for the Social Studies Teacher. Journal of the National Council for the Social Studies 35: p. 119-120 (January).

### JOURNAL OF THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES

1971 Paperbacks from C/Q. Journal of the National Council for the Social Studies 35: p. 110 (January).

### JOURNAL OF THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES

1971 Sources and Resources: Environmental Agencies, Organizations and Publications. Journal of the National Council for the Social Studies 35: p. 78-83 (January).

LOCKARD, J. DAVID, ED.

- 1970 Seventh Report on the International Clearinghouse on Science and Mathematics Curriculum Development. American Association for the Advancement of Science; Washington, D.C. 690 p. (ED 040 083).

Report on projects involving curriculum development

NATIONAL AUDUBON SOCIETY

- 1968 Nature Centers and Outdoor Education Facilities. The Society; New York, N.Y. 32 p. (ED 029 483).

List of local programs and centers.

NATIONAL AUDUBON SOCIETY

- 1969 Directory of Environmental Education Facilities. National Audubon Society; New York, N.Y. (ED 037 942).

NATIONAL EDUCATION ASSOCIATION

Pollution. (A bibliography). NEA; Washington, D.C.

NATIONAL SCIENCE TEACHERS ASSOCIATION

- 1970 Environmental Education for Everyone – Bibliography of Curriculum Materials for Environmental Studies. NSTA; Washington, D.C. 50 p.

NATION'S SCHOOLS

- 1970 Where to Get Instructional Aids. Nation's Schools: p. 30–31 (March).

NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

- 1968 New Jersey School District Survey of Environmental Education Programs. The Council; Mountain Lakes, N.J.

Survey of programs and sites in New Jersey.

NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

- 1968 PACE Outdoor and Environmental Education Projects—National Listing. The Council; Mountain Lakes, N.J. 77 p. (ED 024 504).

NEW JERSEY STATE COUNCIL FOR ENVIRONMENTAL EDUCATION

- 1970 Environmental Education Title III: New Jersey Projects. The Council; Mountain Lakes, N.J. 2 p.

POLLUTION ABSTRACTS

- 1970 Pollution Abstracts, LaJolla, Calif.

Contains citations and abstracts of information pertaining to pollution. Six issues a year - \$35.00 from the 1970 calendar year (regular subscription price \$70.00). Information reviewed includes: domestic and foreign technical reports, contracts, journals, symposia, governmental documents, patents and newspapers. Available from — Pollution Abstracts, c/o Oceanic Library and Information Center, P.O. Box 2369, LaJolla, Calif. 92037

SMAC — NEWSLETTER

- 1970 Environmental Education - Bulletin SMAC 3:6

Listing of programs, films, books, grants, fellowships, and contracts related to environmental education.



U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1969 Free Films on Air Pollution. Public Health Service Publication No. 1264. Government Printing Office; Washington, D.C. 20 p.

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

1969 Selected Sources of Environmental Conservation Education Materials. Government Printing Office; Washington, D.C.

U.S. GOVERNMENT PRINTING OFFICE

1966 Air Pollution Publications. FS 2.24: Ai7/963-66. U.S. Government Printing Office; Washington, D.C.

Bibliography, 1963-66, on air pollution. Contains 900 entries.

U.S. GOVERNMENT PRINTING OFFICE

1966 Air Pollution Training Program. FS 2.98: T68. U.S. Government Printing Office; Washington, D.C. 42 p.

This catalogue lists the universities which offer graduate programs in the field of air pollution and describes briefly what the programs consist of and what the entrance requirements are.

U.S. GOVERNMENT PRINTING OFFICE

1967 Free Film on Air Pollution on Loan for Group Showing. FS 2.2: Ai7/30/967. U.S. Government Printing Office; Washington, D.C.

Contains a list of free films available for groups and organizations concerned with the national air pollution problems.

U.S. GOVERNMENT PRINTING OFFICE

C.1969 Air Pollution Publications: A Selected Bibliography with Abstracts 1966-1968. Superintendent of Documents, U.S. Government Printing Office; Washington, D.C. 532 p.

U.S. PUBLIC HEALTH SERVICE

1965 Sulfur Oxides and Other Sulfur Compounds: A Bibliography with Abstracts. U.S. Government Printing Office; Washington, D.C.

U.S. PUBLIC HEALTH SERVICE

1966 Carbon Monoxide: A Bibliography with Abstracts. U.S. Government Printing Office; Washington, D.C.

VANARIA, LOUIS M.

1971 Pamphlets. Journal of the National Council for the Social Studies 35: p. 107-109+ (January).

Pamphlets and government publications on ecology and the environment.

WASHINGTON EDUCATION MAGAZINE

1970 A World Worth Living In. Washington Education Magazine: p. 22-23 (May).

Bibliography of books, tapes, and films.

WATT, LOIS B. AND MYRA H. THOMAS, ED.

1970 Environmental Ecological Education: Resources for Elementary and Secondary Schools. Office of Education, U.S. Department of Health, Education and Welfare; Washington, D.C.

WESTINGHOUSE LEARNING CORPORATION

1971 Learning Directory 1970-71. Westinghouse Learning Corporation; New York, N.Y.

A directory to instructional material in all media, for all audiences, and for all types of learning situations.